SF
395
.S3

TRADE MARK

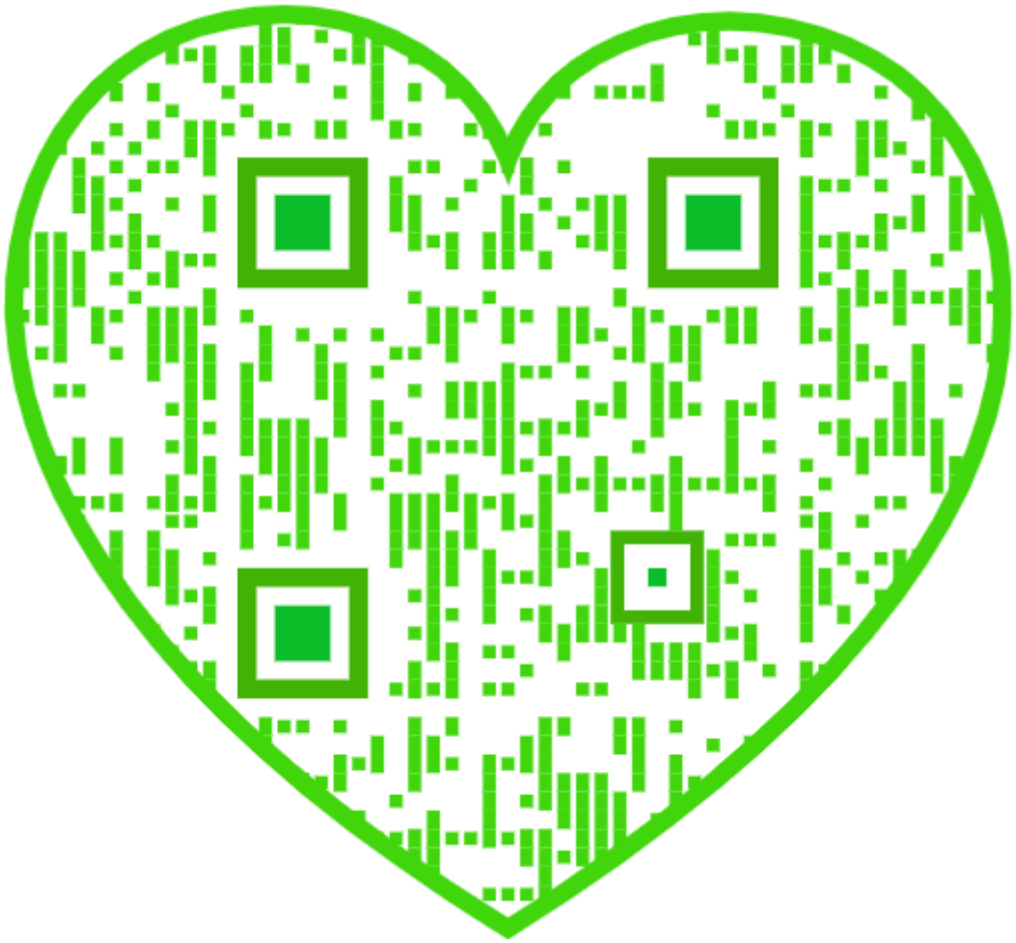
SAL-VET

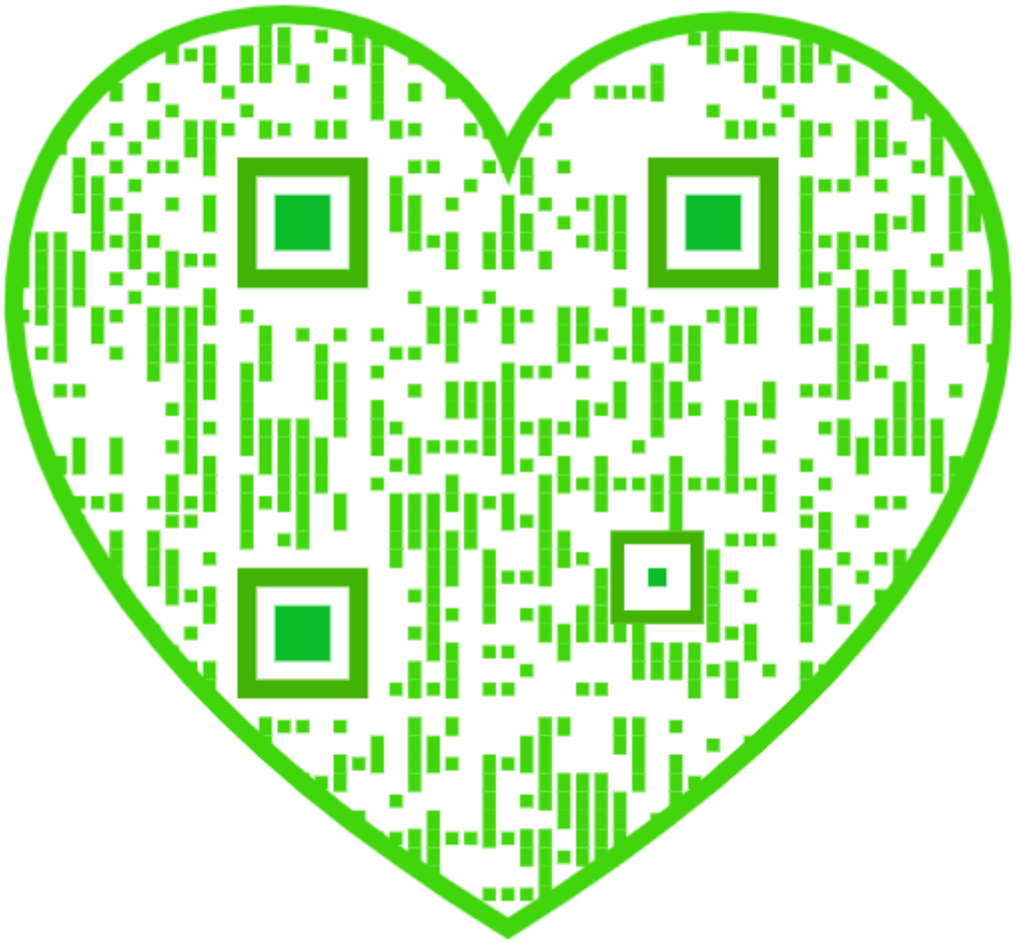
REG U.S. PAT. OFF.

SWINE BOOK

F. D. COBURN
A. J. LOVEJOY
E. C. STONE
ROBT. EVANS
SPECIAL CONTRIBUTORS

Published by
THE S. R. FEIL CO., Mfg. Chemists
CLEVELAND, OHIO





Class SF395
Book .S3
Copyright No.

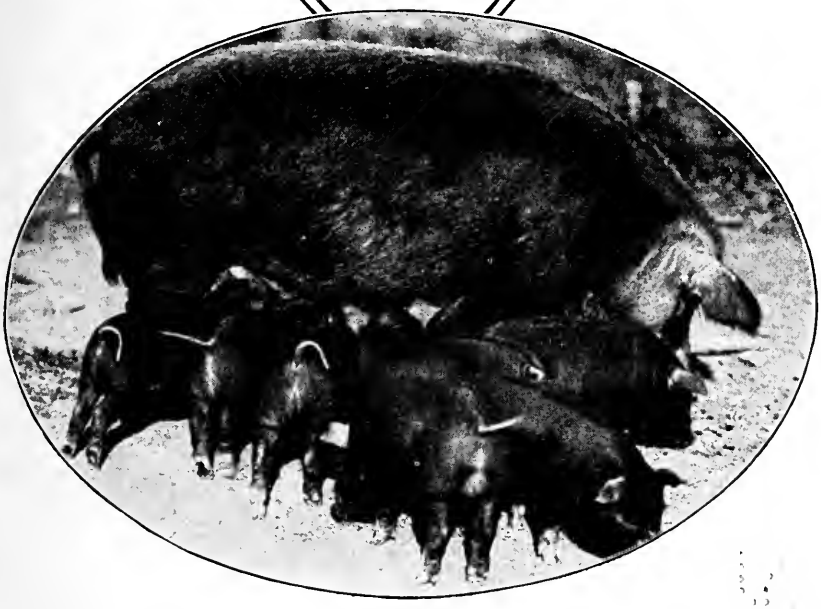
COPYRIGHT DEPOSIT.

TRADE MARK

SAL-VET

REG. U.S. PAT. OFF.

SWINE BOOK



SPECIAL CONTRIBUTORS

F. D. COBURN
E. C. STONE
A. J. LOVEJOY
ROBT. EVANS

Published by
THE S. R. FEIL CO., Mfg. Chemists
CLEVELAND, OHIO

SF395
.S3

The SAL-VET Stockmen's Library.

Swine Book, Illustrated	Price 50 cts.
Sheep Book, Illustrated	Price 50 cts.
Horse Book, Illustrated	Price 50 cts.
Cattle Book, Illustrated	Price 50 cts.

Each of these books has a valuable, colored anatomical chart, as a supplement.

Copyright, 1912
By THE S. R. FEIL CO.
Cleveland, O.

$1.50
©Cl.A327247
2nd ,

PREFACE

The most serious problem with which hog raisers have to contend today, is the health of their animals. Statistics compiled by the Department of Agriculture show that the loss from the diseases which attack swine amounts to many millions of dollars every year. Traced back to their beginning, it is found in almost every instance that these destructive diseases are caused by stomach and intestinal worms—the internal parasites that sap the blood, strength and vitality of your farm animals. Realizing this, I began several years ago to study this subject, and to conduct an exhaustive series of experiments in my chemical laboratory, seeking a safe, sure means of destroying these deadly pests. How well I have succeeded is best told by the letters reproduced in this book and by the almost universal demand for "Sal-Vet" which now exists among prominent breeders and feeders.

This book is compiled with the earnest desire that in it you will find much that is new and practical and if it shall add something to your knowledge of how best to breed, feed and care for your hogs I shall be amply repaid for all the labor and expense involved.

Very truly yours,

Sidney R. Feil, Pres.,

The S. R. Feil Co., Cleveland, Ohio.

Corn and Hogs—A Winning Combination

Successful Hog Raising

(Written for the "Sal-Vet" Swine Book)

By Hon. F. D. COBURN, Topeka, Kan.

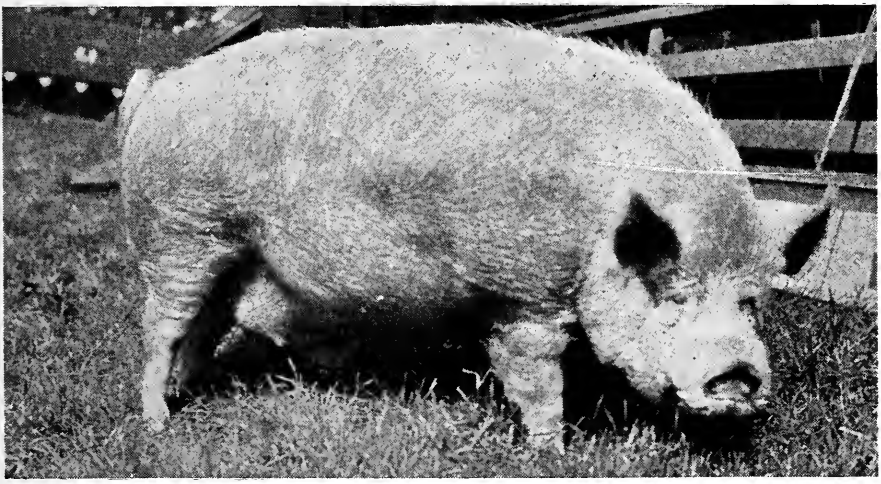
Mr. F. D. COBURN

WHILE the words corn and hogs are not synonymous, they seem in actual practice closely related. That is to say, the great corn states are the ones in which hogs and pork-making most abound, and vice versa. While from a scientific standpoint corn is by no means a perfect or properly balanced ration, and hence alone is not so nearly sufficient as possibly some others, the great mass of those who raise hogs or who grow the pork and lard upon which nations, navies and armies depend for these commodities, use corn, too often unwisely, as their staple, basic feed for growth, maintenance and fattening, and without it they would not, except in rare instances, be in the business on any considerable scale. Taking into account its proven food excellence, its comparatively low cost and its convenience, it has no close competitor, and the hog-raiser having access to abundant corn at a reasonable price is possessed of a great

advantage; yet this, by no means, proves on the one hand that pork cannot be and is not profitably produced without corn, and on the other that too much corn can be used, as is unwittingly and expensively demonstrated every year in every state in the union.

Whether he has corn, or has not, it may be truthfully said, and with emphasis, that no one is rightly equipped to raise hogs without having as a large part of their rations in spring, summer and fall, an ample supply of green and succulent forage, which, summed up in one word, means pasturage. Without this he is distressingly handicapped, while with corn or some like fattening grain, pasturage, water and shelter, the man of hogs has the material for evolving commodities, hungered for and paid for at a generous profit by all the world. Other elements may be helpful and wholesome, but he already has the essentials. The best pasturage is alfalfa, red and white clover, peas, soy beans, brome grass, winter rye, and Dwarf Essex rape. Early in the season blue grass also serves well in lieu of the others, but is less highly esteemed, especially after mid-summer. If the pasture land is divided into two or more lots in which the hogs can range, say for two

week periods alternately, it affords constantly a fresh, clean growth, much more relishable than that from land over which there is continuous grazing and tramping. Despite his reputation to the contrary no animal is more responsive to wholesome, clean food than is



"Give the Hogs Fresh Green Pasture"

the hog. As to maintenance of the sow at the highest grade of efficiency at lowest cost during her idle season, there is no pasture feed yet discovered, that is so generally satisfactory, as alfalfa. Close, filthy pens and dry, barren lots, with insufficient shelter and

water, an exclusive corn diet and lack of exercise all work against wholesomeness, health and profit. They tend to constipation, worms and like evils, that mean feverish, and other conditions, which invite disease.

There are numerous standard breeds of swine, divided into two types. One is known as the "lard hog" type, and includes such breeds as the black-and-white Poland China, Berkshire and Hampshire, the white Chester White, and the reddish Duroc Jersey, from which are obtained the heavy, thick side and other meats and lard of commerce. Of these "lard" hogs, there are probably raised in the United States, ten thousand head to one of any other. The variation from these is found in the gaunt, spare, long-legged, type designated as "bacon hogs," and mainly represented by the sandy Tamworth and the rather more attractive white Yorkshire, reared for their lesser proportion of fat to lean meat, by those who would be purveyors of luxuries rather than staples—streaky bacon for the few, rather than mess pork for the masses. The foregoing are all known as large breeds, the chubby, small breeds, such as the Suffolk and Essex, reared by many forty or fifty years ago, being now virtually obsolete.

There is not such a real difference in the breeds now most common, as to make the choice of a breed of major importance, after the breeder has once decided between the lean and the lard types. The champion of each will easily demonstrate, at least, to his own satisfaction, that the one he advocates is incomparably the best, and so far as his purposes are concerned he will doubtless be pretty nearly correct. The breed a man likes and believes in, is, as a rule, the one with which he will best succeed and is the one to which he should devote his energies.

In these days of enlightenment, no one of standing in his business thinks of breeding from scrub or grade boars. The very least he can afford to do is to use well-formed, pure-bred sires, matured and tested if may be, chosen from families showing uniform high quality, upon the best, roomy sows obtainable, when not less than eight months old; not necessarily pure breeds, but the more good blood and evident quality they possess, the more certainty there is of their producing pigs of the same sort.

All experiments demonstrate that well-grown, matured sows that have had two or three litters, farrow more, much larger and

stronger pigs, and suckle and care for them better than do gilts with first litters. A brood sow of proven worth is good property up to five, six or seven years, and should be retained as one of the prized animals of the farm. In the southern half of the United States, where the weather is temperate and the seasons longer, two litters per year are entirely practicable, while in the north, with its protracted severer weather, one March or April-farrowed litter, pushed for early winter marketing, will probably give most satisfaction.

There are strong arguments that can be presented in favor of obtaining a litter from a young sow, and then consigning her to the fattening lot instead of wintering her over, but the owner's situation and judgment at the time, can best determine the proper course to pursue. When not in pig or suckling a litter, a sow will, as a rule, be in heat for a period of three days in each three weeks. One service by the boar is sufficient and the pigs will be due in about 112 days. A sow that does not give birth to and rear average litters of seven robust pigs, is below a profitable average and should be disposed of, unless there are some otherwise especially strong reasons for keeping her. If she gives abun-

dant milk and raises from seven to ten healthy pigs to the weaning age, which is from seven to ten weeks, she is good property. Some give birth to as many as seventeen or even twenty pigs at one time, but no sow can yield nearly enough milk for more than ten, after they are two or three weeks old, and her farrowing a larger number, although overwhelming proof of prolificacy, is not often an advantage.

A sow in pig should be treated with the utmost gentleness, be kept separated from horses, mules, cattle or other stock which might injure or worry her, and should have ample opportunity for exercise, such as pastures afford and encourage. For two or three weeks before her babies are due, she should be given very little corn, but plenty of nutritious slops and succulent food, provided with sheltered, dry, quarters and straw, hay or leaves enough to make a shallow bed. With too much material, she will make a deep bed with walls, from which the pigs will roll downward into the bottom of the nest, be overlain and crushed or smothered. When farrowing, the sow will generally do best if left alone, but when a particularly valuable litter is expected, it may be well for some one

not a stranger and not too officious, to be near in case of need. Sometimes, if the sow is gentle but restless and threshes about a good deal, it is well to take each pig, as it is born, away from the nest, until all have

Growing Pigs Need Room to Exercise

arrived, when they can be quietly returned, ready and eager for their first meal.

Have some clean drinking water accessible to her, but there is no hurry about giving her anything to eat, for she will neither need nor want it. After thirty-six or forty-eight

hours, some fresh, thin slop made of wheat bran and shorts (not corn meal) mixed with water or skimmed milk, not too sour, may properly be placed where she can reach it. Later the feed can be increased in quantity and quality, and in about three weeks a separate trough, where other animals can not disturb it, should be arranged for the pigs and be provided with fresh slop (not swill) and other feed that they will relish, and pasture for all, at will. These are not to take the place of the dam's milk, of which there is seldom enough, but merely to supplement it. The best sow ever born can not give milk unless supplied with suitable food for its making, and one of the least suitable for this, is Indian corn. To expect a sow, fed mainly on corn, to give any considerable quantity of wholesome milk, is to anticipate the impossible.

Frequently sows wean their pigs of their own accord, without being separated from them. All the pigs suckling a sow giving a considerable flow of milk, should not be permanently taken from her at once. The preferred way is to leave about two of the smallest with her for several days, and then leave one for three or four days, when the

milk flow will be so diminished as to cause the sow's udders no harm. The weaning period, and soon after, are critical times in the life of the pigs, and the change from the mother's milk to a diet having none of it, should be so gradual and comfortable, that there will be no check in growth. Neglect at this time is at heavy cost.

The boars should be castrated when they are from two to eight weeks old. After the pigs are weaned, they should be in a pasture or where they can have green food and exercise, with such abundant grain and other feeds as will rapidly make bone, tissue and blood, rather than fat, as this is the season for building as inexpensively as may be consistent with rapid and constant growth, the framework upon which to spread and hang the flesh and fat, when the period of maturity and finishing arrives, and when the more concentrated and expensive feeds are required.

There is no time in the year when alfalfa hay is not relished by swine, and brood sows that are largely wintered on it, give birth to vigorous litters, and supply them thereafter, with proper treatment and a generous abundance of wholesome milk. It is a general belief among those who should know best, that the

usual swine ailments are nowhere less prevalent, than in regions where alfalfa is a goodly part of the rations for old and young, in both winter and summer.

As stated already, corn is the great staple for the work of finishing for the butcher, and when used in the ordinary slipshod way, a bushel fed dry, to a two-hundred or two-hundred-and-fifty-pound hog, is expected to yield ten pounds of gain. Often, in unpropitious surroundings, much less is realized, and where conditions are right, twelve or even fifteen pounds, are not uncommon. The man, the surroundings, the breed, the conditions, the previous history and treatment of the animals, and the weather are all factors having to do with the results. In some situations, all these work in combination for good; in others, too often due to shiftlessness and ignorance, the opposite is true, and unsatisfactory growth, disease and disaster are the main rewards. The man who so manages his herd of hogs that with ordinary good care, they average at maturity, a pound in weight for each day of their age, is considered as having an adaptability for the business, and a breed or combination of breeds, suited to his situation. Thousands

surpass such weights, but millions of others never attain them. While growing their frames and muscles, swine should have room for abundant exercise, but for the three or four weeks ending their fattening period, closer confinement in comfortable quarters, is harmless and more economical.

It is often the case that, through neglect, hogs are allowed to become infected with lice, to a degree greatly harmful. No hog that is lousy is in the best condition of thrift, because the lice are blood suckers, and every one of the thousands that may prey upon an animal, is at work depleting that animal's vitality. The favorite seat of these is back of the ears, along the neck, around and inside the upper part of the fore legs and under the breast. Various dips and sprays are on the market, that if liberally applied to the hogs, their pens and sleeping quarters as occasion suggests, will exterminate the lice, and at the same time have a cleansing and wholesome effect upon the skin.

There should be no hour in a pig's life when it is not growing. If, from any cause its growth is checked, the pig is not only an expense for the time being, but has sustained a loss that is never overcome, except by additional time, risk and increased cost. The same is true of those that become sick. A sick hog, even though it may recover, is undesirable property, and success can only come to those who maintain their stock in robust health and uninterrupted growth.

Berkshires

(Written for the "Sal-Vet" Swine Book)

By MR. A. J. LOVEJOY, Roscoe, Ill.

Mr. A. J. LOVEJOY

QUOTING from the first prize essay, published in Vol. 1 of the American Berkshire record, published in 1875, we find, among the earliest published accounts of Berkshire swine, that a publication called the "Perfect Grazier" describes a Berkshire boar in the year 1807, over one hundred years ago, that weighed, when exhibited by Sir William Curtis, 113 stone (or 904 lbs). Also, that the general weight of the various animals of the breed, weighed from four hundred pounds up to one thousand pounds.

Originally the Berkshires were of a sandy color, occasionally having black spots. They were coarse in appearance, with very long bodies, deep sides and resembled the early specimens of the then called "Jersey Reds." Even in the early days, the meat of the Berkshire was said to be better marbled than that of any of the breeds then known, and from time immemorial, were preferred

A Typical Berkshire Boar

to all other breeds for fine bacon and choice hams. It was thus we find the Berkshires of earliest English history. Tradition tells us that the formation of the improved Berkshire, was made by a cross of the Siamese boar (a deep plum colored breed) on the old unimproved Berkshires of that day. It also tells us that the pure white Chinese boar was sparingly used to assist in the same effort. With Siamese boars as perfect as could be had, used on the original Berkshires, was doubtless one of the principal factors which contributed to the formation of the greatly

improved breed, since held in such high esteem for a century and a half.

The first improvement of the breed began in England in 1780, and their characteristics at that time, were quite similar to those of the present day, having snout rather fine and short, well dished in the female, though larger and somewhat coarser in the male, with a bolder expression, broad between the eyes, jowls well filled, ears rather small and upright when young, but inclining forward with inclination to droop with age. Neck short and full, chest broad and deep, back broad and somewhat arched as now, rump as nearly level as possible, twist well let down, body long, deep and with ribs well sprung, sides even and straight. Bone very strong but not coarse, but of every like quality and hardiness.

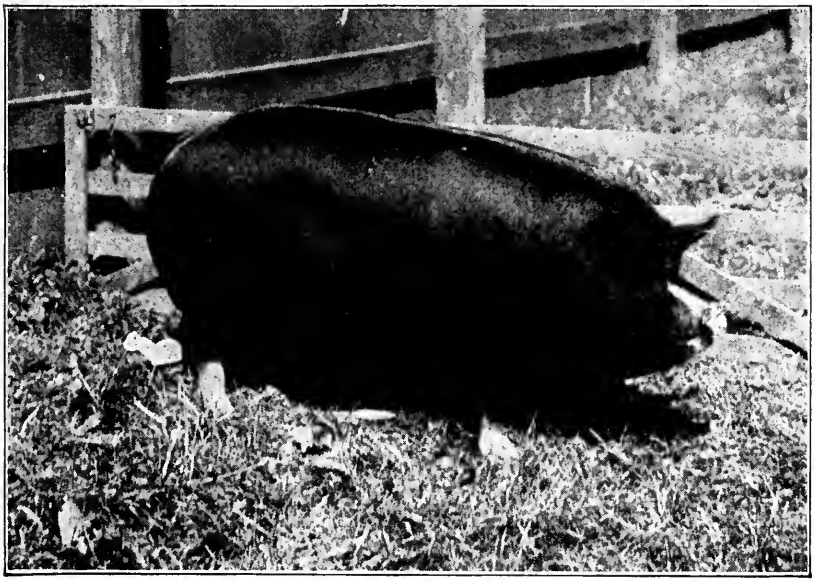
A boar called Windsor Castle shown in 1841, measured, as he lay in his pen in a direct line along his side, six feet, three and one-half inches, and from tip of nose to root of tail when standing up, measured seven feet, with a heart girth of six feet, and a height from ground to top of shoulder of two feet eleven inches.

The improved Berkshire was first imported

to the United States in 1823, by Mr. John Brentnell, an English farmer, who settled in New Jersey. The next importation was brought over by Mr. Sidney Hawes, also an English farmer, who settled near Albany, N.Y.

By the year 1838 they were brought to Canada and some of the Western states. The improvement has been continued since their first introduction into this country, and at the present day, the Berkshire breed is the par-excellence of porcine beauty, showing a more blood-like appearance, than does any other breed of swine. Their long ancestry of pure breeding gives them the power to transmit their good quailities to every breed on which they have been crossed.

It is generally conceded that all of the black breeds of swine are carrying more or less of the blood of the improved Berkshire. It is a matter of record even, in the make-up of the great Poland China, that the breed first got their present color of black with white points, from the Berkshire. In 1897 at the Iowa State Swine Breeders' meeting in June, the question was asked, by a breeder, "Where did the Poland China first get his present color?" the question was answered by a then prominent breeder, who said,



A Typical Berkshire Sow

"From the Berkshire, through a popular boar known as Tom Corwin 2'nd., he being by a pure-bred Berkshire."

The modern Berkshire of the twentieth century, like his ancestors, is noted for the excellence of his flesh; also for his grazing qualities and ability to make quick and large growth, always ready to top any market, at any time of the year. As mothers, the Berkshire sow has no superior; as a milker she is the equal of the best dairy cows. They are

very quiet at farrowing time. I have personally covered with a blanket, a sow that farrowed at 9 P. M., and the next morning found her warm and still under the blanket with her litter all right. I am not saying a word against any breed of swine, for I know that there are several, and all good ones are money makers, but I started thirty-six years ago to breed Berkshires, and have never seen any reason to change breeds. New breeders by the thousand are taking up this breed, and each year we find our Record Association doing a greatly increased business. The demand is certainly beyond the ability to supply. There is no semblance of a boom, yet prices for best specimens are sometimes quite well up, especially if from noted strains of popular breeding.

There is no doubt that the breeding of swine, by the general farmer, will show more real profit for a series of years, than will that of any other department of his farm; this is a matter of fact, and has been over the entire country.

The products of the hog, feeds more people, than the products of any other meat producing animals. It is said that bacon "greased the course of empire westward." That its

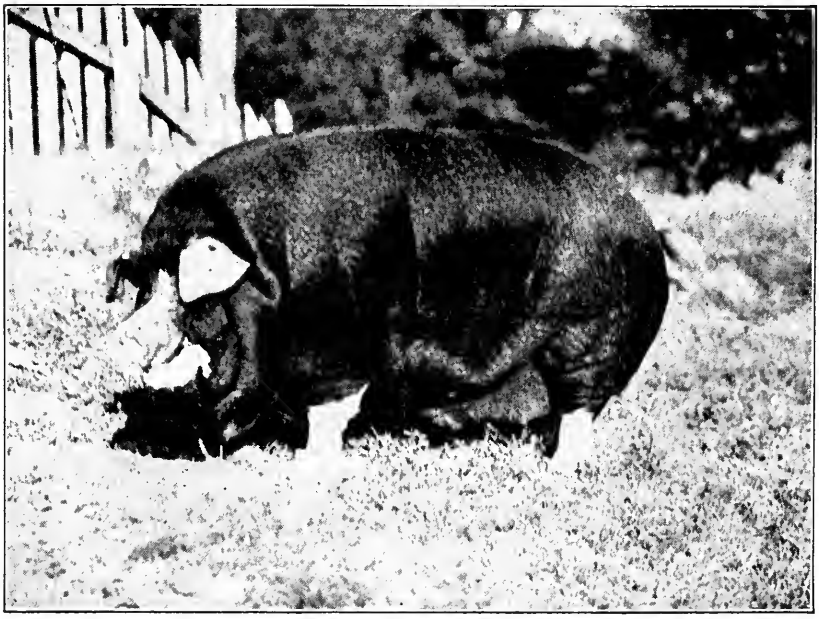
"fame needs no recommendation, for it has sizzled over a million camp fires, on mountain, mesa and plain." So I say, look well after your swine department, and see that you get all out of it that is due you; give it good care, good attention, and in the end you will be well repaid.

Poland Chinas

(Reprinted from Animal Husbandry, Chicago).

HE Poland-China breed of swine was the direct result of necessity. It was in the broad rich valleys of the Great Miami and Little Miami rivers, of Butler and Warren counties, Ohio, where the soil, by nature, was adapted to the production of corn, wheat and clover, that the breed had its origin. These sturdy, bright-minded farmers of Butler and Warren counties, feeling the need of a breed of swine that could convert their corn, wheat-millings and clover into a greater amount of pork at a less cost of production, than the other breeds then at hand, which were known as Warren County Pigs, Byfields, Irish Graziers and Berkshires, set about to evolve a breed

by crossing all these breeds (and perhaps others), the result of which was the Poland-China. Whether it was luck, genius or Providence which most attended them in this ever-uncertain work, the evidence of their success becomes more apparent, their achievement greater, their beneficiaries more numerous, with each succeeding day. It is significant to note that, upon the advent of the new breed, the swine industry of south-western Ohio had a great impetus, which has

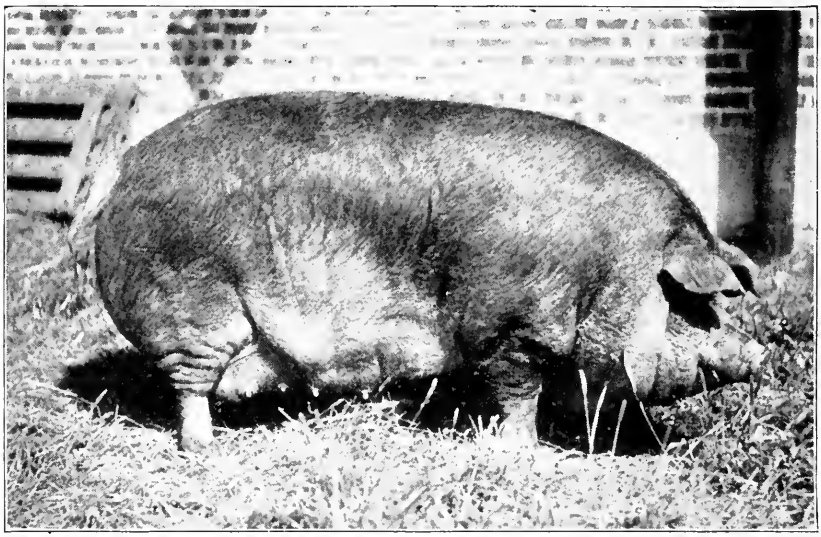


A Prize Winning Poland-China Boar

followed the invasion of this wonderful "porker" into almost every nook and corner of our country. I believe it fair to say that chiefly through the merit of this breed, the swine industry was more quickly accepted and proved to be a decidedly profitable and indispensable adjunct of the farm, which naturally resulted in the extension of the industry, thus requiring a materially increased acreage of corn, wheat and clover, better methods of farming, more expedient farming implements, factories, packing plants and railroads, thus insuring greater profit to labor, which induced immigration. All of this tended toward our present great business activity and prosperity. I am, therefore, inclined to believe that the Poland-China hog has been a potent factor in our agricultural advancement, and likewise a liberal contributor to every trade, business, profession and industry in our land, for all arts follow in the wake of tillage, and prosper only through and by reason of the prosperity of the farmer.

This breed is especially plastic, and can therefore, by a systematic method of mating, be readily formed to correspond with the breeder's ideal. Any error which creeps in through the influence of fad, fashion and

disregard for utility, may quickly be corrected. This applies to the breed in general, and not to any particular branch of breeding or pedigree. The plastic quality of the breed



A Typical Poland-China Sow

is clearly evidenced by the ease with which the former lack of prolificacy and size, has been overcome.

The writer has on hand, sale catalogues, issued during the past year by breeders residing in the principal swine-producing states west of the Mississippi river, and by some

residing east of it, and assuming these to be a fair criterion as to the fecundity of the breed, finds the average number of pigs farrowed per litter in 1000 litters, to be nine and one-tenth.

The size deficiency has also been eradicated among western herds. It is not uncommon for pigs at twelve months of age, to weigh 400 pounds or more; matured sows 700; matured boars 800, 900 and occasionally 1000 pounds. This, too, has been accomplished without forfeiting the feeding qualities for which the breed has ever been famous.

Take it all in all the Poland-China breed has been triumphant in its career; the status of the breed at this time is most encouraging.

Of late there has been a great revival of interest in Poland-China breeding, the cause of which may be attributed to the reform in breeding which I have mentioned, and to a more general awakening upon the part of the American farmer as to the necessity of the corn, clover and pork combination for pleasure, profit and permanency.

Hampshires

The Hampshire hog was introduced to this country as early as 1835. This breed originated in Hampshire, England, and may

Hampshire Sow—A State Fair Winner

readily be distinguished by its peculiar marking. The body is black in color with the exception of a band of white, measuring 4 to 12 inches in width, which encircles the body, including the front legs. This characteristic gives the Hampshire breed a very striking appearance. They mature rapidly, reaching a good weight at an early age, and are rapidly gaining in popular favor in this country. Mr. E. C. Stone, who has contributed an article on "Farrowing" for this book (see page 48), is one of the leading exponents of the Hampshires in this country, and is secretary of the American Hampshire Record Association.

Durocs

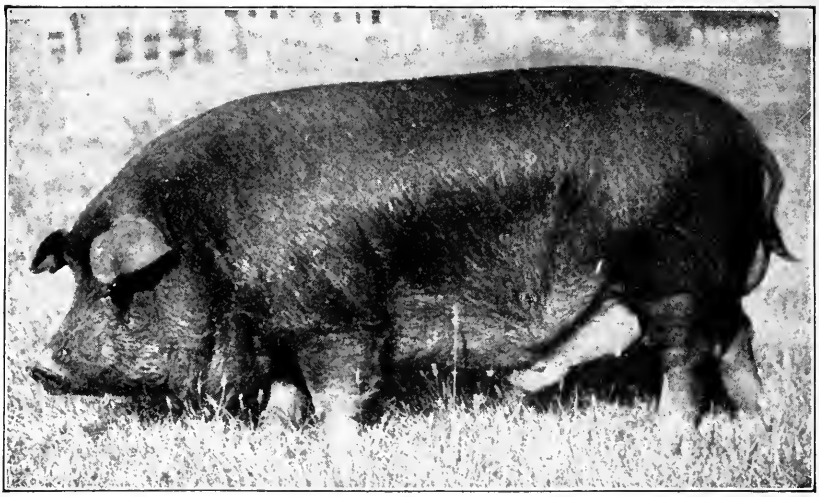
(Written for the "Sal-Vet" Swine Book)

By Mr. ROBERT EVANS, Editor "The Duroc Bulletin," Peoria, Ill.

Mr. ROBERT EVANS

THE question, "Is there money in hogs?" has been answered so frequently and so plainly and so convincingly, that we hear it propounded less often every year, but the question as to which is the best kind for profit, is still troubling the new breeder and the man who is thinking of breeding swine. It is difficult to answer this query, and when made by the best authorities, often leads to confusion and bad results.

Our work and our interests have been for years with the Durocs, yet many of the breeders of swine make unusual success with any and all of the other breeds. Our advice would be to take up the kind that you like, and stick to it through thick and thin. This is the secret of success in hog production—everlastingly sticking to it. No breed of swine has made the improvement or the progress in popularity and numbers, in the same length of time, as has the Duroc. This is due partly to

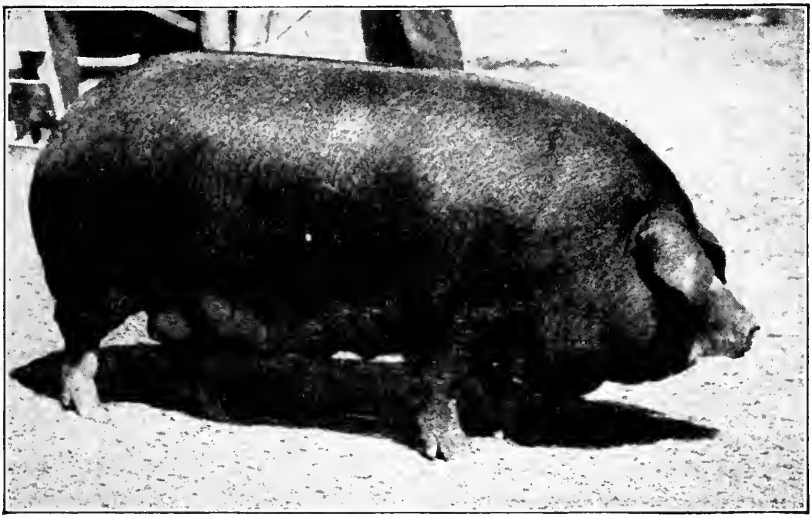


A Typical Duroc Boar

breed; for the rapid advancement of the the enthusiastic men who have been behind the breed, who had the time, the intelligence and the push to improve and advance the breed interests, but much of it must be credited to the hog himself, for as a "Farmer's Favorite" or as a rustler, he has no equal. From the old, rough, slow maturing, uncouth animal of twenty years ago, to the symmetrical, smooth-coated, quick maturing Duroc of today, is a long and hard road, but the distance has been covered, and the new herds of Durocs being established every year, are surpassing all expectation of the most enthusiastic advocate of the breed.

The two reasons given in the foregoing

paragraph, do not cover all the ground. The fact that the Duroc is a hardier hog than some of the older breeds, has had a great deal to do with it. The fact that they are hardier, or at



Prize Winning Duroc Sow

least seemingly so, can be explained to some degree, by the fact that most of the Duroc breeders had had experience with other breeds, and when they took to the newer, they were more careful of the health of the herd.

We come now to the underlying principle, the foundation for success in the raising of any breed of swine.

An unhealthy herd is nothing more than a hole in which to put money you have made some other way. Keep the hogs healthy, keep them free from the lice and mites, keep them clear of worms, and we predict that the call for cholera serum from the state laboratories will be decreased at least 90 per cent. Plenty of range, plenty of forage, good clean water and sweet slops, clean sleeping floors, as clear as possible of all dust and all manure, and your troubles are reduced to a minimum, and the danger of disease, except from a neighborhood contagion, is reduced to a speck.

The disposition of surplus stock from the herd is a problem that needs the most careful attention. The price of pork on foot has been so remunerative for the past few years, that there has been plenty of money in selling them over the scales, but a few can be disposed of at good prices to your neighbors, if you have demonstrated by your well kept herd, that there is more money in the pure-bred, than in the old scrub. You see your success depends again on the impression you have made in the conduct of your business in your own locality. The public

sale method has been adopted by Duroc men more than by the advocates of any other breed, and this has assisted in the breed's popularity, too. Many prefer the mail order plan, but the sale system has come to stay, and is one of the greatest methods ever devised for marketing breeding stock all at one time, and securing the benefits of your labor all in one bunch of money.

The popularity of the Duroc and the numbers of herds, as compared with other breeds, can be better understood if you visit any one of the great markets of today. It has been said, on good authority, that more than 75 per cent. of the hogs coming to the principal markets of the United States are pure-bred Durocs or have a preponderance of Duroc blood. This should mean a whole lot to the breeders of this breed, as well to the man who is casting about to find the breeds he wants to take up. The Duroc has gone through the "boom" period that every breed has to weather, and the sales, both private and public, have been put on a sound business basis, the terms being in nearly every case, cash or its equivalent. The breed is supporting two of the largest

and best swine associations in the United States, and while we believe they should be merged into one, the large business that both are doing, is only another evidence of the growth of the Duroc business.

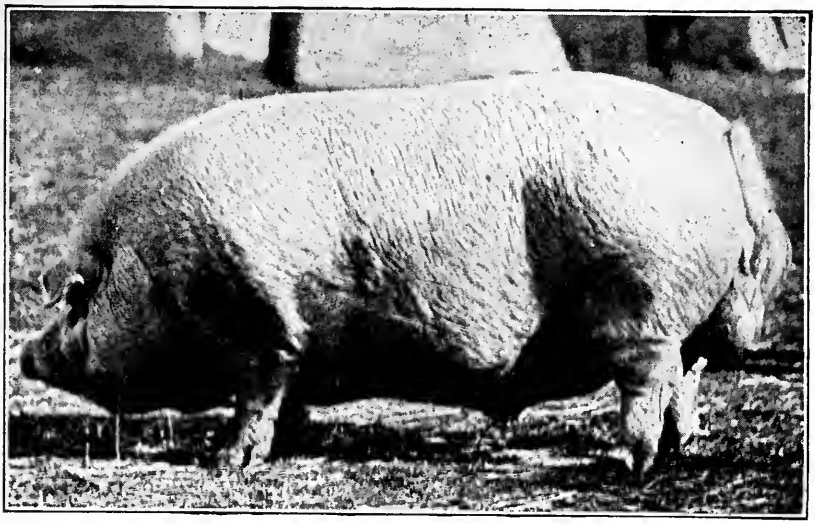
To the new or the old swine man we have this closing advice: Look well to the health of your herd and Mr. Porker will look after the wealth of his grower. Select the breed you believe is the best, and stay with it year in and year out. Sell for cash or a note that is the same as cash, and make good every guarantee that you put on the animals sold for breeeders.

If you are selling only on the market, keep the herd pure and get more for your feed than you can by keeping grades.

If you are selling to breeders, cull closely, and never sell or breed for your own use, an unworthy representative of the breed.

Have some grass or forage crop for your pigs as early in the spring as possible; give them all the range and water you can. Study their wants as you study the condition of your corn ground and you need not fear the results.

Chester Whites

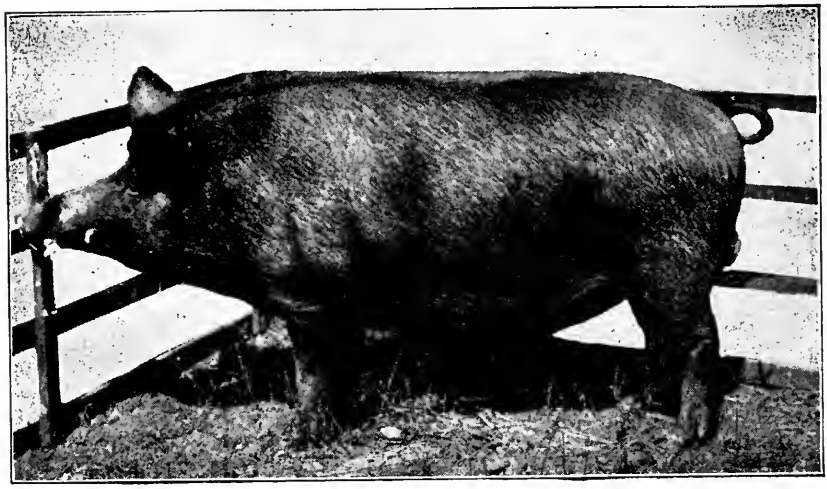


A Typical Chester White Boar

THE White hog of Chester County, Pa., is the foundation of all the families, strains and variations of White hogs known as Chester Whites, Improved Chester Whites. Ohio Improved Chester Whites (commonly known as O. I. C.), Todd's Improved Chester Whites, etc. The chief characteristics of this breed, are a long deep body with broad back and deep full hams. The legs are short and the head short with broad space between the eyes. The face is but slightly dished. The ears

project forward. The hair is plentiful, fine, white and may be wavy. Some of the heaviest porkers ever produced have been Chester Whites. This breed has many points in common with Yorkshires, owing to the fact that they were originated by crossing the big Chinas with white pigs from Bedfordshire, England, which are from Yorkshire descent.

The Tamworth



A Champion Tamworth Boar

The Tamworth is supposed to be a pure descendant of the old Irish hog, which in

turn, was a pure offspring of the original Wild Hog of Europe—the species that still roams the royal forest reserves in Southern Germany and the timbered regions of Russia. The resemblance between the Tamworth and its ancestors is very striking. The peculiar long straight skull is not found in any other domesticated breed. The Tamworth is a red hog of various shades, from pale yellow red, to nearly black, and in most litters there are a few pigs with small black spots on belly, neck and legs.

The typical Tamworth has rather long nose, erect ears, turning slightly back at the tips, legs rather long and narrow, but shoulder and ham deep. The back is not wide on top, the belly being thick as the back and well inlaid with thin lean meat.

The Tamworth Cross

Tamworths have been very successfully crossed with Berkshires, Duroc Jerseys and Poland-Chinas. The Berkshire Tamworth Cross is perhaps most desirable. The offspring are attractive appearing animals, unusually robust, hearty feeders, quick growers and economical producers. They are good "shippers," as seldom are there any cripples

among them when unloaded at the stock yards. Where the cross is made by using Tamworth females, advantage is taken of the unusual prolificacy of this breed.

Yorkshires

The Yorkshire is more prolific than most other breeds, as it is a common occurrence

Yorkshire Sow—A State Fair Winner

for a gilt to farrow ten or twelve pigs and to raise them all.

Yorkshires are divided into three classes. (1) Large White. (2) Middle White. (3) Small White. The last named is considered the smallest and finest of swine.

The face is dished, snout short and turned up, body heavy and deep, legs short and set well outside the body, short, thin neck, full broad chest, broad level back. The ears should be small, short and erect. Color, pure white; coat fine and silky.

The Middle White Yorkshire has a moderately short head, dished face, broad turned-up snout, fairly large erect ears fringed with fine hair. The neck is of medium length, the back is long, level and wide. The color is white and the coat long, fine and silky.

The Large Yorkshire has the general characteristics of the other Yorkshires, but is distinguished by its size and the following points: Face not as short, nor so much dished as in the smaller types, neck longer, ears longer, thin and slightly inclined forward. The coat is white, long and moderately fine.

Cheshires

This is an excellent white breed, originated in Jefferson County, New York, and should be distinguished from the old English Cheshire breed, which was large and coarse. The American Cheshire is a valuable breed,

white in color with a fine coat of hair of medium thickness and quality. The face is somewhat dished and wide between the eyes, ears are small, erect, and, in old animals, often point slightly forward. The neck is short, body long and deep, legs small and slim and set well apart. When grown and well fattened, Cheshires should dress from 400 to 600 pounds.

Victorias

This white breed was originated in Indiana, and within recent years, by Mr. Geo. F. Davis. Its chief characteristics are that it is a larger hog than the small Yorkshire, resembling the Berkshire in build, but white in color, instead of black, and of a quieter disposition. Other characteristics are small head, broad face, medium dished, ears fine and pointing upward, neck short, full and well arched, legs fine and straight, feet small, hair fine and silky—free from bristles. These several characteristics denote the ancestry of the Victorias, which is said to be Poland-China, Chester White, Berkshire and Suffolk.

Essex

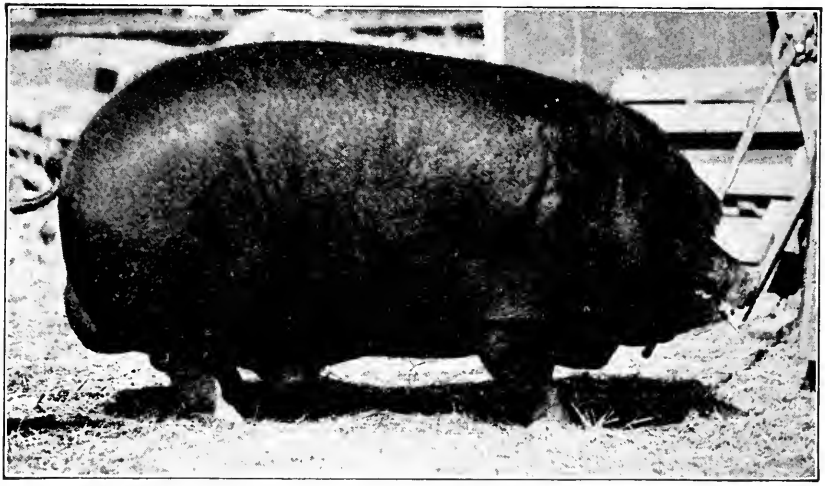
This breed is of English origin, having originated in Essexshire. In its native country it has practically passed out of existence as a result of continual crossing with the Suffolk and Berkshire. However, it is still recognized in the United States and has the following characteristics. It is a small, wholly black breed, with small, broad head, and dished face. The ears are fine, erect and slightly drooping in older animals. The neck is full, short and well arched. The hams and shoulders are broad, full and deep; legs are fine, straight and tapering, with small feet. The hair is fine and silky, free from bristles. In disposition the animal is quiet and gentle. This type is reputed to mature early and to fatten easily.

Suffolk

The American Suffolk breed is believed to be a variety of the English Yorkshire, as they have many characteristics in common. The Suffolk hog is white, with a small broad head and a dished face. Ears are fine, erect and droop slightly with age. The neck is short, full and slightly arched; the body is

of good length, fine bone, pinkish skin and soft fine hair, free from bristles. The Suffolk breed matures early and produces meat of excellent quality, but is considered quite sensitive to sudden changes in temperature.

Selecting the Boar



"The Boar Is Half the Breed"

TOO much attention cannot be given to the selection of the boar if you expect to raise large litters of healthy pigs.

The boar is "half the breed," and it is imperative that you select an animal of

thoroughbred blood. By all means do not use a boar that is related to the sows that are to be bred. Avoid the common mistake of using a boar raised on your farm or in your neighborhood, to serve his own offspring. It will pay you well to travel miles to breed to a vigorous, well-formed boar of good blood, or even to purchase a young boar, say five or six months old.

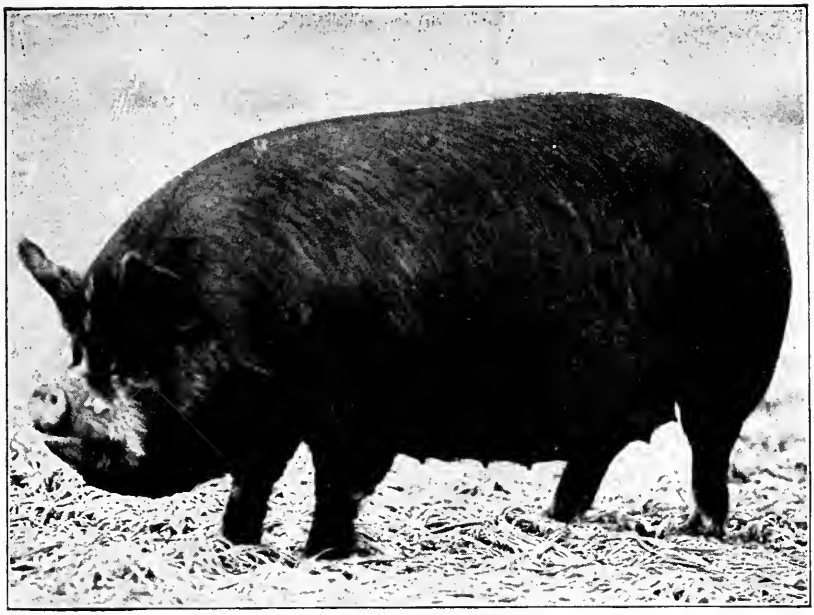
In selecting a boar look for these characteristics: A good bone, for it is the framework on which the animal is built. A short broad face, wide between the eyes. The face should be dished, concaved and slightly drooping forward, as these are signs that indicate a good feeder, an easy keeper and a good disposition.

A good thick neck indicates strong vital organs and an indication to fatten readily. Plenty of width between the forelegs, large girth just back of the forelegs and ample width on top of the shoulder indicate large heart and lungs and a foundation for a vigorous animal. A broad back produced by ribs that are elevated slightly as they spring out of the spine, and a broad loin, indicate a large stomach and the ability to assimilate food readily. A long well-

rounded hip, meated down at the hams, indicate a meaty temperament. The leg should be short and of medium girth. The animal should stand up on his legs well and have plenty of animation. In selecting the boar, it is advisable to note, not only his individual characteristics but his ancestry. If he comes of good pedigreed stock on both the male and female sides, and has the points mentioned, he can be depended upon to get well formed, vigorous offspring.

Selecting the Brood Sow

N SELECTING a brood sow, care should be used to choose an animal of quiet, contented disposition. She should be large and roomy, with great length and depth of side. She should, however, be trim and neatly formed with no signs of flabbiness. She should be animated and not sluggish in her movements. The udder should be of good shape and have 12 to 14 teats, evenly placed and extremely well up to the forelegs. It has been noticed that a sow taken from a large litter, is more likely to produce large litters.



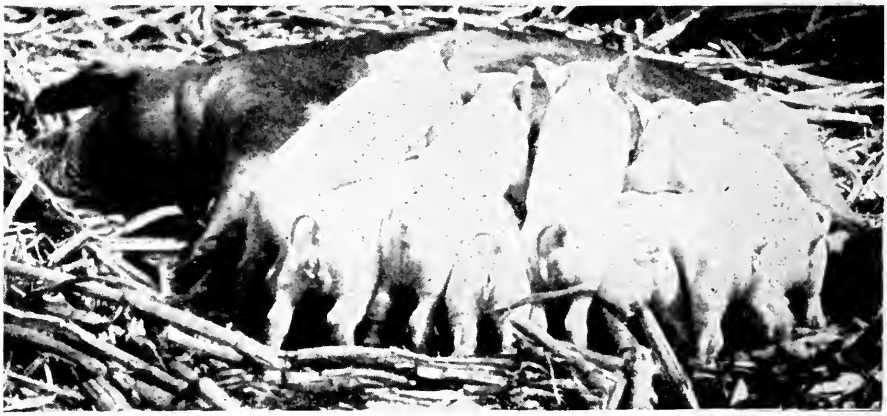
Large and Roomy With Length and Depth of Side

Two common mistakes often made by hog owners, are the breeding of sows that are too young, and the disposing of good brood sows of proved prolificacy, at an early age.

Young sows should not be bred until they are at least 10 to 12 months old. By this time the animal is sufficiently matured so that the raising of her litter does not drain her constitution. As a rule the litters of a very young sow are inferior in size and thrift.

When a sow of good type has proved a prolific and a good mother, she should be

highly prized and kept for several years, say six or seven. Of course, when a brood sow becomes sluggish in her movements, due to her age, the danger of her killing her pigs is much greater than it is in younger sows.



Farrowing

THE best of care should be given the brood sow after breeding. While she may be left with the rest of the herd for the first two months, after that she should be kept by herself. About ten days before farrowing time she should be kept in smaller quarters where she will remain quiet, and get accustomed to her surroundings. Very little bedding should

be furnished as the pigs are apt to be smothered in it. If a properly medicated salt be kept near, the craving of the sow will be satisfied and she will not be inclined to eat her young.

Throughout the gestation period her feed should consist of bone and muscle producing feeds, such as bran shorts and mixed feeds. Very little corn should be fed. Pasturing is especially good, but when this cannot be had, dampened clover hay or alfalfa will afford a satisfactory substitute. About farrowing time light feeds and all the pure water the sow will drink should be given. With this care and treatment she is apt to require very little attention at farrowing time, although a close watch should be kept and assistance given if necessary.

For the first twenty-four hours after farrowing, the mother should have nothing but pure water, and for several days following, her feed should consist of light, easily digested rations. Close attention should be given to the food supply for the first month after farrowing, as the right kind and proper amount, will largely determine the health and vigor of the litter.

Mr. E. C. Stone, of Peoria, Ill., Secretary Am. Hamps. Swine Breeders' Association, gives his experience as follows, for the benefit of our readers:

"Farrowing time, where trouble is most liable to be, is in the spring of the year, when sows have been wintered principally on corn and water. This corn feed is so strong and hot, that it causes a tension on all the muscles of the sow's body, and they will not relax in order to allow free and easy delivery. Then it is the common thing to say that the pelvic bones were too close together, and such things, when the real fact is, the pig is not vigorous enough, and the tension of the muscles is too great.

"One easy way to assist in this matter, if you are a very busy man, is to let the breeding sow have free access to a stack of clover hay. Hogs allowed to run in a shed, where one side is filled to the ground with clover hay or alfalfa hay, will eat very freely of this hay, and it takes the place of green grass, better than any feed that you can give them. Hogs will not waste hay at all. For several years I have used a large shed for sows that I was breeding, filling one side with clover

hay, where they could run to it all the time during the winter; the ground, near the hay, was always as clean as if swept. Some old sow will sometimes carry a mouthful of this hay to her nest, but not a straw of it will be wasted, as some other sow is there to eat it, as soon as she can get at it.

"If you have time, in addition to water, corn and clover hay feeding, it is a very excellent plan to give your sows a slop at least once a day. My favorite mixture is about half and half wheat middlings and ground oats; to this add a handful of oil meal to each three head of sows being fed. If sows are fed in this manner and kept reasonably free from lice and worms, they will rarely, if ever, have any trouble at all farrowing. While I have been asked not to mention 'Sal-Vet' in this article, I must say that I like at all times, to season my hogs' feed with this medicated salt. I season the feed to make it palatable, the same as my good wife does the food that I like. While you are making the hog's feed more palatable to him, you are at the same time feeding him something that at once acts as a conditioner and a worm exterminator. I always feed 'Sal-Vet.'

"My experience has shown me that the greatest trouble in farrowing, has come from improper feeding, prior to farrowing.

A radical change of feed within 40 days of farrowing, will often produce a large number of dead pigs on farrowing day.

If the feed above mentioned is given to breeding sows, they will mellow and the muscles will act free and easy, and farrowing will be a time of pleasure, rather than a time of worry.

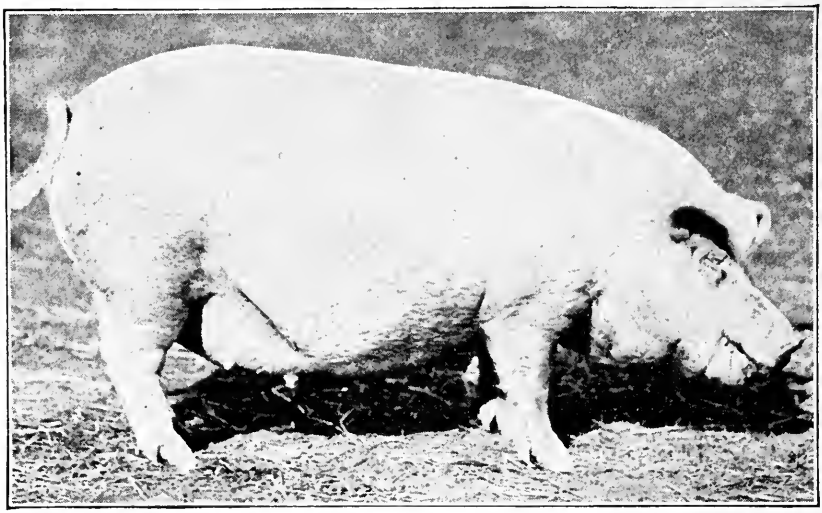
For years I have handled only Hampshires, and while I have bred many sows that farrowed at the age of 8½ to 9 months old, I have never lost a sow or gilt, and my customers have, in all my sales, reported to me but two Hampshires having died farrowing. I do not advise the breeding of sows so young, but I have a large mail trade which may call for a bred gilt where the express is $6.00 to $8.00 per hundred, and they want something light, to save express charges.

"Should you ever have a sow that cannot farrow her litter within a reasonable length of time, say commence delivery within three hours from the time you first notice heavy

labors, then it is time to assist her. When you commence to assist a sow farrowing, do not be in a hurry. More sows are killed in a careless hurry-up way, than are lost by negligence, if they have been properly fed. Any good pig forceps may be used. I have never yet seen one on the market that would not serve my purpose (the only ones I ever owned, cost me fifty cents.) See that these forceps are clean; they should be scalded in boiling water. Grease them with vaseline to avoid irritation, then proceed very carefully, never in a hurry, and in no case be rough with the laboring sow. When she labors, work slowly and assist when you know you have a hold on the pig (which you can tell from feeling with the forceps); close them only tight enough to keep them from slipping, work as the sow labors, and you will save the pig alive, if he was alive when you commenced with him. It is a good idea to let the sow rest a while now, and it may be that she will need no further assistance.

"I have in many instances for neighbors, helped them to save a whole litter of good size, where they knew the sow was so wild, that you could not go near her. If a sow is wild, it is the caretaker's fault and not the

sow's fault. Sows handled with good judgment during breeding and carrying season, will never be cross nor wild at farrowing time. I am at the service of any reader of this article, to freely answer questions any time any one cares to write me."



A Prize Winning Chester Gilt

Caring for the Little Pigs

THE two most important things to consider in the raising of the little pigs, are, to keep them supplied with nourishment of the right sort and to prevent them from being crushed or

smothered by the mother hog. The last trouble may be prevented in the majority of cases by the following suggestions: The

Give the mother milk producing foods

bedding should consist of a rather limited supply of wheat or oat straw, cut up into short lengths. It may also be of advantage to have the ground slope slightly from the door to the rear of the building, so that the sow will lie with her back to the door when

the pigs are feeding. Then when she gets up hastily to leave the building, she will not walk over her little ones. An excellent device for protecting small pigs from being crushed against the wall, is to fasten wide planks about eight or ten inches from the ground and set them out from the walls by means of short pieces of scantling. This prevents the mother sow from getting close to the walls, and in lying down, the little pigs back of her are simply crowded under the plank and escape injury.

The amount of nourishment the little pigs receive the first two weeks will, of course, depend on the condition of the mother's health and the feed she receives. For the first four days after farrowing, a sow should be fed lightly with bran and water, and her allowance should gradually increase until, at two weeks, she has access to all she will eat of bran shorts and milk.

When the little pigs are two or three weeks old, they will begin to show a disposition to eat out of a trough. About this time a separate trough should be provided behind a fence, high enough from the ground to allow them to creep under. Skim milk mixed with

wheat shorts to form a thin porridge, makes an excellent feed for the very young pigs. By the time they are a month old a slop of bran and shorts may be fed.

At eight to twelve weeks, they should be weaned. Whole corn, fed in small quantities, is good for the young pigs, but it should be previously prepared by pouring warm water over it, and allowing it to soak twenty-four hours before feeding. Clabber milk is also fine for the little fellows. They should always have an abundance of fresh clean water. Castration should take place at the age of six weeks, while the pigs are still with the sow.

Feeding the Brood Sow and Litter.

The best ration for the sow is one that produces a good flow of milk. Bran, middlings, ground oats and plenty of good clover hay seem to supply the elements required. In case the pigs become constipated, a little oil meal mixed in the slop will correct this trouble. As soon as the young pigs begin to crack corn, they should have access to a limited amount of it, and this,

together with a slop made with skim milk and ground oats without the coarse hulks, makes a splendid "growing" diet. "Sal-

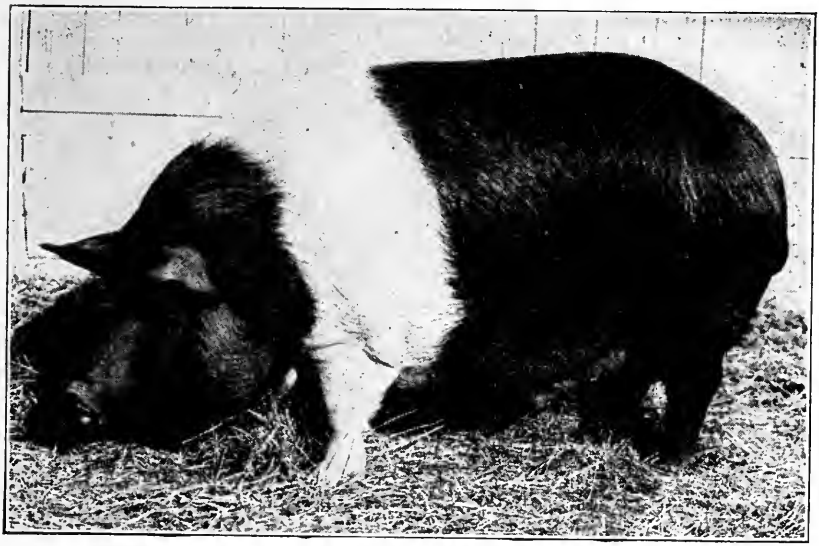
Make the Brood Sows Exercise to Get Their Food

Vet" and fresh clean water should be placed where they can be partaken of freely.

Feeding the Pregnant Sow

THE important thing is to bring the sow up to farrowing time, with her bowels in good condition. She cannot, of course, be heavily fed, yet the digestive tract must be kept well dis-

tended. This can be accomplished by feeding much water in sloppy foods, or by the use of such foods as possess considerable



Hampshire Boar—International Winner

bulk or volume. Whole shelled corn, mixed with some unground oats, and scattered thinly on a clean swept floor, gives excellent results. To get the food, the brood sow must then walk about and exercise considerably. This is necessary to make her and her offspring strong and healthy.

Another excellent ration for the brood sow consists of barley and peas mixed in the proportion of two parts of the former, to one of the latter and soaked in water. To this add one quart of ground corn, to twelve quarts of the barley and pea mixture. When mixed this makes about sixteen quarts of feed. Chop into short cuts, good, well cured clover hay, free from mold, and mix with the soaked feed described above, using equal parts of each. Thin with water to make a slop feed, and give three times a day. While this feed may seem to require quite a little time and trouble in its preparation, we believe the results will amply repay you.

Some breeders and feeders recommend the feeding of bran and corn mixed half and half. This affords a bulky ration that seems to keep the digestive organs in good condition.

The main thing is to **keep in mind the condition of the animal's bowels** and any combination of grains that are bulky and not too productive of fat, will prove desirable.

Feeding the Boar

THE BOAR should never be allowed to run with the sows, and it is advisable to keep him in a lot where he can neither see nor hear the other hogs. Inasmuch as he is to be separated from the other animals, a ration particularly suited to his needs, should be fed. Care should be taken to have the foods of a bulky nature and such as to relieve the bowels of any tendency to constipation. His food should not be productive of a great amount of fat.

During the breeding season, this ration is recommended—two parts of oats, one part shorts and a little oil meal with a little tankage added. This combination makes a strong, palatable feed. If milk can be had, there is no feed that will keep a young boar in as good condition. During the breeding season, regularity in feeding is very important; in fact, fully as much so, as the kind of feed used.

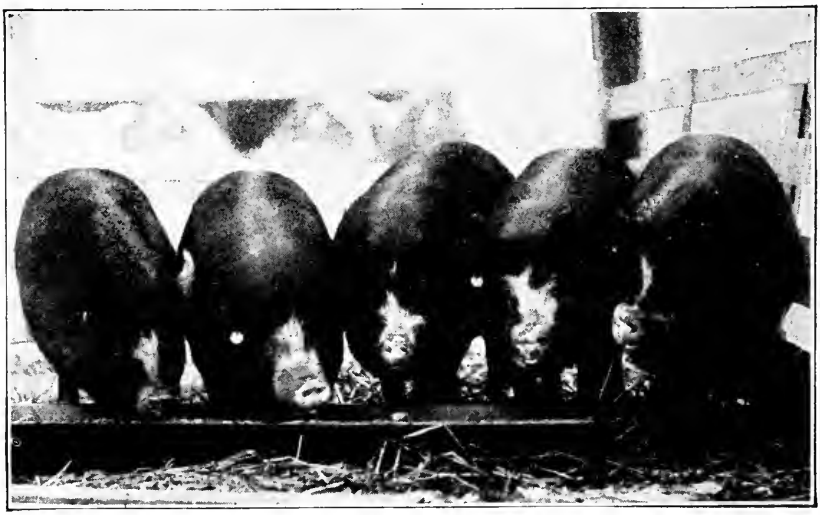
Feeding the Growing Pigs

Good thrifty pigs, well fed, should make a gain of a pound a day from weaning till they reach seventy-five pounds. After that

they should gain from 1⅓ to 1½ pounds per day. The Department of Agriculture recommends the following rations for growing pigs, weighing from 20 pounds to 180 pounds. Where milk is to be had, feed as follows:

"For pigs weighing 20 to 80 pounds, three ounces of corn meal, to each quart of milk.

"For pigs weighing 60 to 100 pounds, just twice as large a proportion of corn meal, and for pigs weighing from 100 pounds to 180 pounds, give eight ounces of corn meal, to each quart of milk."



"They Should Gain a Pound a Day"

We realize that on many farms, especially where calves are fed, there is a shortage of milk. In these cases we recommend the following ration:

1.—For 20 to 60 pound pigs, give as much milk as can be allowed, plus a mixture of one-third corn meal, one-third wheat bran and one-third gluten meal. Feed in sufficient quantity to satisfy appetites.

2.—For pigs weighing 60 to 100 pounds, give whatever milk is at your disposal, plus a mixture of one-half corn meal, one-fourth wheat bran and one-fourth gluten meal. Feed in quantity to satisfy appetites.

3.—For pigs weighing 100 pounds to 180 pounds give as much milk as is at your disposal, and a mixture of two thirds corn meal and one-third gluten. Feed to satisfy appetites.

A very satisfactory growing ration for young pigs, and one that is usually available

and easily prepared, is skim milk mixed with corn and shorts. The proportion for mixing should be about one pound of corn and shorts, to four of the skim milk.

"Almost Ready for Market"

Feeding for Market

CORN alone is not a practical feed for fattening hogs, since better rations can be had on any farm.

A series of experiments conducted by the Nebraska Experiment Station resulted as follows:

"Pigs fed on alfalfa pasture and given about two pounds of corn per day per 100 pounds of live weight, made the most economical gain."

"Pigs fed on alfalfa pasture alone gained slowly, showing the great advantage of combining alfalfa with a light grain ration."

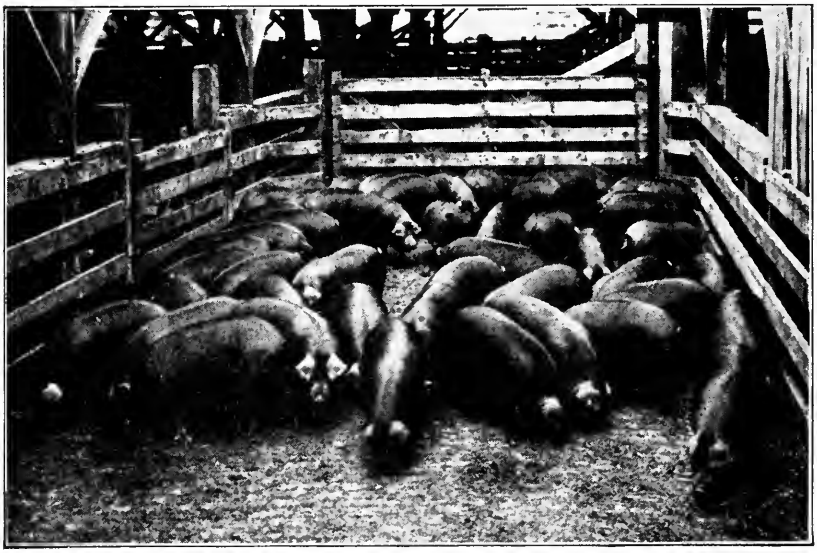
"Pigs fed on corn and alfalfa hay in racks, showed very satisfactory gains, but not as much as on green alfalfa pasture with corn."

"Pigs fed on 95 per cent of corn and 5 per cent tankage, made much better gains than hogs fed on corn alone. In fact, the feeding of tankage made each bushel of corn fed bring 14 cents more per bushel, than where corn alone was fed."

All rations for preparing hogs for market should include either clover or alfalfa pasture in summer, or well cured clover hay or alfalfa, in winter.

Experience has clearly demonstrated that the best time to market a hog is when it has attained a weight of 200 to 250 pounds. This is true for two reasons.

First, hogs of this weight command the highest market price, and second, the cost of producing extra pounds of weight increas-



An Even Lot at the Stock Yards

es rapidly with the increase in the hog's age. It takes one-fourth more feed to put a pound of gain on a 350-pound hog, than it does on the 130-pound hog.

Largest profits come from raising early maturing types, and turning them off as soon as they reach the weight mentioned above.

Winter Feeding

Plenty of alfalfa or clover hay should constitute a liberal part of the winter ration for hogs. In fact where there is an abundance of good leafy alfalfa, this together with a pound of grain a day to each 100 pounds of live weight, will carry the hogs through the winter nicely. Where it is planned to market them early, the following ration is recommended:

> "Five parts of corn meal, three parts of shorts and one part of tankage."

The brood sows will thrive best on a ration composed of eight parts corn meal, three parts shorts and one part tankage by weight, with alfalfa hay. The sows should have a little more than maintainance requirements. A 300-pound hog should have three to four pounds grain mixture with all the alfalfa hay she will eat.

Pasture for Hogs

MANY hog raisers overlook the fact that the hog is, by nature, a **grazing** animal, and that the most rapid and economical gains in flesh are made when he is required to exercise while feed-

The Hog Is a Grazing Animal

ing. Mr. F. D. Coburn in his splendid book, "Swine in America," states that it has been found that clover is worth around

$32.00 per acre for pork, when the latter is worth four cents per pound, and that alfalfa has brought as much as $53.32 under similar conditions. The coarse feed stimulates the digestive organs to greater activity, so that the animal thrives more rapidly even on a much smaller grain ration.

RAPE: There is perhaps nothing that can excel rape for early pasture, especially if the soil is very fertile. If the soil is not very fertile, manure well, plow and carefully harrow. The seed should be sown broadcast at the rate of five or six pounds per acre. If a shower follows the seeding, rolling will not be necessary. When the rape is four or five inches high it is safe to turn the hogs in, for after that, in fertile soil and with other good conditions, it will make rapid growth.

Rape is a very appetizing food; sows pastured on it will yield an abundance of milk without slop, if corn and water are given in addition to the pasture.

ALFALFA: Makes a splendid pasture for hogs, but care must be taken not to pasture it too closely. The best way is to put on not more than fifteen hogs to the acre — just about enough to make paths through

it and eat some of the leaves. Then the alfalfa can be cut as if it had not been pastured.

Close pasturing with hogs will kill alfalfa. This is especially true in the territory east of the Missouri River, where other grasses and weeds are apt to get a start.

SUCCOTASH MIXTURE: Where good pasture is wanted for hogs from early spring until corn ripens, a succotash mixture of wheat, oats, rye, peas, dwarf Essex rape, etc., is recommended. This will give a large amount of pasture during the entire summer.

The Pen and Yards

THE old erroneous idea that anything is good enough for the hog, is fast disappearing among intelligent farmers. Formerly the pig was looked upon as a sort of a scavenger which relished the filthiest food, the sourest slops, and the deepest mud. There has been a wonderful change in this respect in the last few years and now the pig on most farms has clean, dry quarters, plenty of fresh, clean water,

carefully prepared rations, and the old-time "swill barrel" is a rare curiosity.

Particular attention is being paid to the pig pens and yards. While every owner will have to adapt conditions as he finds them, minor changes can be made on most farms at slight expense, and they will prove very profitable. The pig pen and yard should be located on dry ground with natural slope and drainage away from the house and other farm buildings. By facing the pen to the south, and building tight, it will be kept warm and dry. Good ventilation should be provided; have large windows built on the south side.

Many hog houses are being constructed with a portion of the roof hinged. This affords excellent ventilation, and in warm, sunny weather, gives the hogs plenty of sunlight, which is so essential, especially to the young ones. The floor should be of a firm material and never cold nor damp. Concrete floors are sanitary and easily cleaned, but are too damp and cold for the good of the animal. An ideal floor is made by constructing a cement foundation; over this spread a layer of four to eight inches of sand

and cover with a layer of boards. This floor is easily kept clean and sanitary, and is always warm and rat proof.

The floor of the feeding and sleeping pens should not be much above the level of the yard—but elevated just enough to prevent water from the yard running into the pen. No pen should be overcrowded. It is better to have fewer hogs together and allow them a large, dry, warm bed.

A good plan is to have the pen floors slope out toward the yard.

Long Troughs Prevent Crowding Out the Weaker Pigs

The feed trough should be of sufficient length to allow all pigs to eat from it without

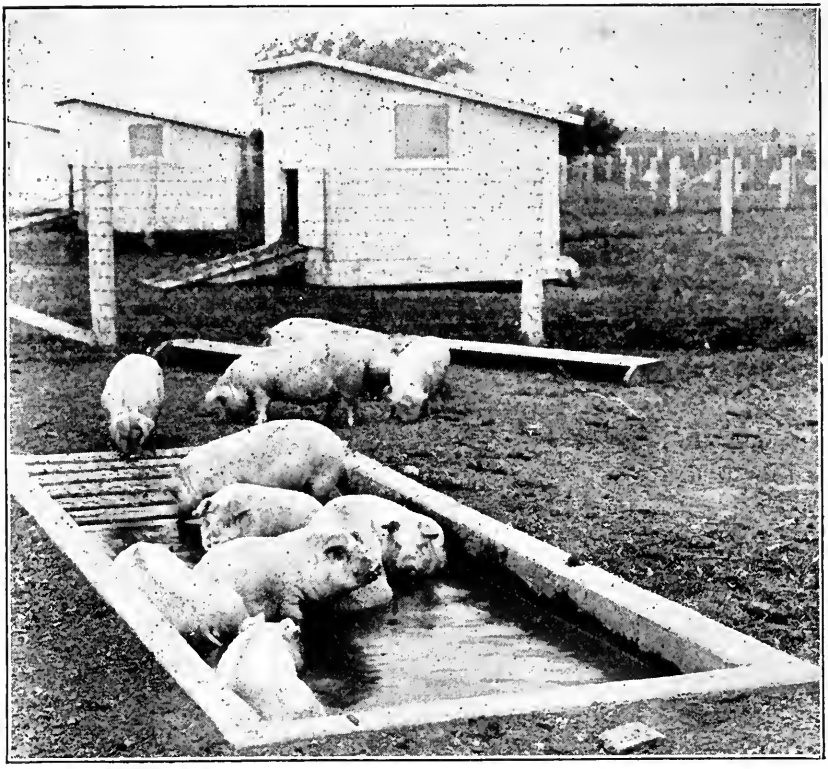
having the smaller ones crowded out.

An excellent plan is to have the trough so constructed, that none of the pigs can get to the food, until it has been properly distributed in the trough. The way to best accomplish this, is to have a swinging partition above the trough. Have it extend the whole length of the trough and hinged at its upper side, allowing it to swing backward or forward, over the trough; arrange a heavy bolt about three feet long with a handle on the upper end, to drop down against the inner side of the trough, when the door is pushed in. This holds the door open, and keeps the pigs away from the trough while the feed is poured.

The Artificial Hog Wallow

(Courtesy of The Farmers Guide, Huntington, Indiana.)

Everybody knows that in hot weather, if given the opportunity, a hog will hunt out a mud-hole in which to wallow. This is not because of his natural love of filth, but because it serves to cool his body and to free



Enjoying Their Bath

him from the torments of lice and other insects. The hog is poorly equipped to withstand the heat of the sun. Shade is necessary, and a frequent wallow in water will aid materially in keeping his temperature normal.

Unless his surroundings be kept clean and he be dipped frequently, he will be lousy.

The wallow by disposing of lice and by bringing about a cooling effect, increases the comfort of the hog, and as a consequence, increases the growth and thriftiness. But the mud-hole is unsightly and very unsanitary. All surface filth will drain into it and there is no easy method to clean it.

Many hog raisers are now using artificial wallows, built of either cement or lumber. These may be frequently cleaned out and filled with fresh water. Then, by the addition of some of the coal tar preparations, lice and other insects may be killed, the skin kept clean, and the need of dipping obviated.

These vats or wallows are easily and inexpensively constructed. Those of cement are more permanent and do not require to be filled with water when not in use, but satisfactory ones may be made from ordinary two-inch plank. Being placed on the ground, little trouble should be had in soaking them up to hold water. They should be ten or twelve inches deep, with a rim around the edge to prevent slopping over, and a slope on one side for the pigs to run on. A one per cent solution of

coal tar preparation will generally be sufficient to kill all lice, and to keep the skin free from scurfiness.

When the vat is placed in the sunlight, the pigs will not lie in it very long, but will run in and out, thus allowing it to be used for a greater number. One eight feet square in size, will do very nicely for five sows and their litters.

The Diseases of the Hog

IT IS impossible, of course, in a book of this size to treat fully and comprehensively all of the many diseases to which the hog is subject. We have selected only the more common ailments and offer for their treatment such suggestions as are recommended at the present time, by the best authorities.

In a recent bulletin the University of Nebraska Experiment Station says: "The old adage that 'an ounce of prevention is worth a pound of cure' is especially true when applied to hogs. They are the most difficult of all our animals to doctor after they once become sick. For this reason, and the additional reason that they are the most profitable when in perfect health, special care should be used in keeping their quarters in a clean, sanitary condition. Owing to the fact that the most dangerous disease of the hog are germ diseases, the houses and pens should be carefully disinfected several times each season. Sunlight is the best and cheapest germ destroyer, but as we cannot get it to all parts of the pens, they should be well disinfected several times a year with one of the coal tar dips, used in about twice the strength given on the can. Chloride of lime used in strength of six ounces to a gallon of water is also effective. The hog lot should be plowed yearly if possible, in order to turn up the soil to the sun.

Anthrax

There are a number of forms of this disease which are very closely allied to hog cholera. The attending symptoms are fever, swelling of pustules, loss of appetite, trembling, increased flow of saliva and a bloody diarrhoea. At the first sign of this disease the animals affected should be removed entirely from all other hogs and a competent veterinary surgeon called at once. The disease progresses very rapidly and delaying a single day, may result in heavy losses.

"Sal-Vet" is recommended as a preventive of Anthrax, but not a cure. It keeps the animal in a vigorous, thrifty condition, better enabling it to resist the germs of the disease. It has been noted that where hogs have free access to "Sal-Vet" Anthrax is practically almost unknown. We have many instances on record where "Sal-Vet" users have suffered no losses, while neighbors on both sides of them, lost heavily.

"I wish to say that I find 'Sal-Vet' more than you claim for it. It is a reliable worm destroyer and an excellent tonic and conditioner. I believe if it had not been for feeding 'Sal-Vet' that I would have lost some of my best pigs, as they had some ailment with which I was not familiar, but the remedy soon had them O. K. and in good growing condition."

M. A. Gillespie,
Ripley, Tenn.

"A lot of hogs have died in this county with the plague or cholera. Some of them were within three miles of me, but I have been feeding 'Sal-Vet' and have not lost a single hog. They are all doing well, eat all I give them and have good appetites for more." D. A. Ross, Kingman, Kans.,
Breeder of Pure Bred Poland Chinas.

Apoplexy

Apoplexy is usually confined to pigs that are too fat or are over-fed. The disease is indicated when the animal suddenly stops eating, appears stupid, foams at the mouth and the eyes become prominent and bloodshot. It then falls over and may die, or, after being apparently dead, may revive in a few minutes and recover entirely.

Some authorities advise bleeding from the veins of the legs. The quantity of blood thus removed should vary from one-half pint to one and one-half pints, according to the size of the animal.

This treatment should be followed with an effective cathartic, like Epsom Salts. This may be administered as a drench, giving two or three ounces dissolved in water, at a dose.

For a few days after this treatment, feed sparingly.

The animal should then be given access to "Sal-Vet" in order that the digestion may be improved, and the bowels kept in best possible condition.

"Have been feeding 'Sal-Vet' for the past sixty days and am much pleased to say that my pigs did better this winter than ever before. My neighbors have been feeding their hogs other remedies and their hogs have been dying right along. I have not lost a single one of my 'Sal-Vet' fed pigs."

D. S. Jones, Venedocia, Ohio.

"I cannot find words to express how much I think of 'Sal-Vet.' Hogs all around my place had cholera, but I did not lose a single one of mine and all winter they continued to look just fine. They had been on 'Sal-Vet,' of course.''

Wm. Campbell, Rt. No. 10, Decatur, Ind.

Hog Cholera

This is the most dreaded of all diseases that afflict farm animals, both by reason of its destructive nature, and on account of the seeming inability of man to check its ravages. Scientists in the employ of the United States Government have for years been tireless in their efforts to discover a cure, and only recently have they succeeded in developing a serum. that as a preventive, is very satisfactory in its action. A positive cure for this terrible disease is, we may safely say, unknown at present. Nowhere does the old saying, "A stitch in time saves nine," apply with greater force. **The real cure lies in prevention.**

If your herd be kept in good healthy condition, free from stomach and intestinal worms, and if the yard and pens are kept in sanitary condition and the food you furnish your hogs equal in cleanliness to that supplied your other farm animals, you need have little fear of an outbreak of cholera among them. Of course equal care must be taken by other owners in your vicinity, and new hogs brought into the neighborhood must be entirely free from cholera infection, as the germ is most virulent and persistent and can easily be carried from one place to another.

The cause of the disease is an organism in the blood so extremely small, that it cannot be seen even with a microscope. The virus is spread about in the manure and the danger of its being carried about, is very great. After being exposed to the disease, an animal may develop symptoms of cholera within two days or it may be two weeks. If the disease appears in an acute form, there will be a rise in temperature, loss of appe-

tite and vomiting may occur. The animals hunt a cool place, lie quietly huddled together, usually hiding their heads in the litter. The hair becomes harsh and dry, the eyes become watery, the animals lose partial control of the hind quarters and paralysis may result. The skin around the flanks and forelegs may become purple, the skin of the ears and nose frequently becomes inflamed. Shivering may be noticed. At first the animal may be constipated, but in the later stages this condition changes to diarrhoea. The cough is usually short and hacking. The victims are generally found dead under the straw. An unfortunate feature of hog cholera is the wide variation in its symptoms and the similarity of many of these, to symptoms observed in other diseases. The safe method of procedure in any case where cholera is suspected is to call a reputable veterinary immediately. In most states the Agricultural Experiment stations are able to supply cholera serum promptly, and steps should be taken to have the entire herd inoculated. The sick animals should be separated at once from the well ones, and the latter should be dipped in one of the reliable coal tar dips. After this move them to clean, new quarters, and have them attended by a person other than the one who looks after the sick ones.

If you have ever experienced the ravages of cholera on your farm or in your neighborhood, you will not depend on home cures but will immediately seek the advice of the best veterinary you can obtain as soon as the first signs of the dreadful scourge appear. After an outbreak of cholera, all dead animals should be burned, all yards should be plowed up, and all litter burned. It is usually the best policy not to attempt to stock up again for several months, nor to depend upon the survivors for getting a fresh start.

There is little doubt that, with the prompt use of the government serum in neighborhoods where the disease appears, together with the precaution of keeping all animals in a vigorous condition and free from worms, this disease which annually robs farmers of millions of dollars will almost, if not entirely, disappear. We have never recommended "Sal-Vet" as a **cure** for cholera, but there can be no doubt as to its wonderful help as a preventive. Letters have come to us by the hundreds containing statements like these:

"Neighbors on both sides of me lost nearly all their hogs from cholera. Mine are in a perfectly healthy condition."

"There is no cholera among the herds that have had access to 'Sal-Vet' in this neighborhood."

Others write us that their hogs were sick and dying almost daily and that "Sal-Vet" stopped their losses. "Sal-Vet" assists nature in fighting disease. It puts every animal in that healthy, vigorous condition necessary to its power of resistance. It rids the animal completely of the life-sapping stomach and intestinal worms. As a tonic, it invigorates the animal and makes for immunity from many other diseases common to farm animals.

"Have fed 'Sal-Vet' to hogs and lost none. Neighbors both sides of me—east and west—have had cholera bad. One west of me on adjoining farm lost about 40 hogs and pigs with cholera. The one east on adjoining farm lost all he had, excepting four." A. J. Hoffman, Leipsic, Ohio.

"After feeding your 'Sal-Vet' for sixty days, I can truthfully say that it is all you claim. As a worm exterminator, I do not think it has an equal. It has certainly put my hogs in the pink of condition." P. F. Dougherty, North Bend, Neb.

"My little pigs were not doing well, and did not make proper gains from their food. After feeding them 'Sal-Vet' for a couple of weeks they picked up and are now looking fine. Had cholera all around me, and neighbors were losing five or six head a day, while I never had a single loss. I think that 'Sal-Vet' is more than you claim for it."

Mrs. B. McConnel,
Carlisle, Ind.

"A disease had broken out among my hogs; they would choke when starting to eat, then would run backwards, then fall over and lie perfectly still for a few minutes. They swelled at the chops and their coats showed a poor condition. They would breathe with great difficulty, and their legs became useless. I had lost six or seven before your 'Sal-Vet' arrived. Since feeding 'Sal-Vet' they are doing fine, have ravenous appetites and are as lively as though they had never been sick."

J. W. Cowperwaithe,
Rt. No. 1, Waymart, Pa.

"Some time ago I ordered a shipment of 'Sal-Vet' to try as an experiment; my hogs were dying with what they call cholera around here. I had previously tried other so-called remedies, without result. I had no faith in your preparation when I commenced to feed it. However, a week after, they commenced to improve, and the sick ones to look much better. Most of the latter had entirely recovered within three weeks. I was still skeptical and was not willing to give 'Sal-Vet' the entire credit, but thought it might be due to a better ration of feed. I then stopped using it, but continued to feed the same rations, when again they commenced to die, and those I thought had entirely recovered, became as bad as they were at first. This convinced me that 'Sal-Vet' is all and more than is claimed for it, so am enclosing check in payment of the trial and for an additional barrel of your preparation." R. J. Correll,
Plano, Ill.

"My hogs were in bad shape when I received your 'Sal-Vet.' Since feeding it they look fine and are fine. I have not lost a hog, but those belonging to my neighbors on all sides have died." D. H. Manshop,
Colo, Iowa.

Chorea

This disease is seldom found except in hogs from six months to one year old. It affects the muscles, causing involuntary contractions. While lying down the animal will appear to be normal in every way, but will shake while feeding, and in walking, will have an unsteady gait. Where the muscles of the trunk are affected, the animal is frequently pulled to one side or another. In this disease there is no fever, nor spasms, nor is the meat of the animal affected. In most cases however, its growth and gain will be retarded, making the animal an unprofitable investment.

No treatment can be recommended except such as will improve the general health of the animal. "Sal-Vet" is particularly effective, inasmuch as it provides, in a convenient form, the elements that the animal's condition requires. When the digestion is improved, and the bowels in a healthy normal state, you may be sure that the animals have been given every opportunity for recovery.

"My hogs have been doing fine since feeding 'Sal-Vet.' Hogs are dying all around us here, but thus far I have not had a loss." C. W. Buck, Savannah, Mo.

"I found 'Sal-Vet' to do just what you said it would; it is sure death to worms. Moreover, although the cholera has spread throughout this neighborhood, I have not had a single loss since feeding 'Sal-Vet.'" Joe Gahimer,
Alexandria, Ind.

"I think 'Sal-Vet' will do all you claim for it, and I consider that it has saved a bunch of fine hogs for me, while the hogs belonging to several neighbors, died." R. E. Munn,
Box 211, McAlester, Okla.

Diarrhoea

Diarrhoea or "scours" is rather a consequence of physical derangement, than a disease of itself. The conditions which cause it are varied. The most frequent cause is found in the nature of the animal's food. A sudden increase in the amount of food or the introduction of food that undergoes fermentation rapidly, are the most common causes. Another cause is debilitated condition of the mucous membranes of the digestive tract. In very young pigs irregular feeding, poverty of the mother's milk, cold, damp quarters and sudden changes of temperature or sudden change of the mother from dry feeds to green pasture, are usual causes. The disease unless checked, will frequently prove fatal; in any event the animal becomes exhausted, thin and helpless.

The first things to do are to make a complete change in food ration, keep on dry foods as much as possible, except giving a gruel of flour and warm water cooked enough to make a thin paste. They should also have access to "Sal-Vet" as it contains the elements needed to aid the restoration of the digestive organs.

In the early stages of the trouble, it is always a good practice to give a small dose of castor oil to clean out the stomach and bowels, and thus remove any fermented materials that are so frequently the cause of the trouble.

"Since giving our hogs 'Sal-Vet' all of them are well and doing finely, although the hog cholera is all around us."

Ed. Collins, Delphos, Ohio.

"'Sal-Vet' freed my hogs from worms by the wholesale. I'll not be without it."

Henry Iverson,
Wagner, S. D.

Indigestion

This is one of the most common ailments among hogs and is usually caused by want of exercise, too much food, lack of variety or food of a poor quality. The symptoms of indigestion are very much the same as in man and all other animals. The appetite is usually poor, altho' at times the opposite is observed and there may be a morbid craving for things they would not touch in good health. In some cases the pig will press his nose against the ground or against fence boards and frequently there is vomiting of liquid matter mixed with partially masticated food. The bowels may be constipated or there may be diarrhoea. A cough is frequently noticed and in young pigs they may fall over as if in a fit. The urine is usually scant and highly colored.

As long as the animal is in this condition, it will not thrive and a neglect of the trouble may lead to more serious diseases. The animal should be given a full dose of castor oil or Epsom salts, and following this a teaspoonful each of aromatic spirits of ammonia and fluid extract of gentian root, twice daily in a little water will stimulate the appetite. "Sal-Vet" should be placed where the animals can have access to it readily. If this is done they will not only soon regain their normal condition and weight, but practically all danger of further attacks will be eliminated. "Sal-Vet" acts gently and directly as a corrective on the entire digestive tract, so that all you feed aids the animal to make corresponding gains. In this way it keeps hogs and all other farm animals in good condition.

Measles

This trouble is very common among small pigs and since it is contagious, the disease spreads rapidly when once there is an outbreak in the herd. The more common symptoms are coughing and sneezing; the eyes are red and watery, and there is a discharge from the nose. The appetite is impaired; the animal is inclined to remain in the nest or bed most of the time. About the fourth or fifth day a rash appears on the skin—first in small pimples and then in larger spots, which become elevated.

The pig should be given a warm, dry bed; the simplest remedy is a half pint of boiled flaxseed with some soft feed once a day. Ten grains of nitrate of potash in the drinking water, or a teaspoonful of sulphur to each pig, given in milk and slop twice a day, will be helpful. Care must be taken to keep the animal warm and dry, especially if sulphur be given.

When the animal recovers, it should have access to "Sal-Vet" to put it in condition to make quicker gains.

Report of the University of Idaho

"We have used your 'Sal-Vet' and are wonderfully well pleased with the results we have obtained. We have fed your preparation to horses, cattle, pigs and sheep, and have never seen our entire herd in such fine condition as it is today. This is particularly true of the pigs and horses, in which cases the use of 'Sal-Vet' was directly responsible for ridding the animals of intestinal worms. And since using 'Sal-Vet' we have no further trouble from worms." Prof. E. J. Iddings,

Animal Husbandman, University of Idaho,
Agricultural Experiment Station, Moscow, Idaho.

Partial Paralysis

Like almost all other diseases which attack the hog, the above condition is usually a result of over-feeding, or improper feeding, without sufficient exercise, which causes indigestion, followed by a stiffening or weakening of the back and hind legs of the animal.

The trouble is frequently traced to the feeding of an improperly balanced ration. Feeding too much corn, without sufficient other grain and pasture, is not conducive to the proper growth of bone structure, and this is why the animals "break down."

Every successful hog raiser fully realizes the value of preventing disease, and if this trouble is due to the above causes, add tankage, shorts and oil meal to the ration.

In the early stages, you may notice a stiffness in rising and moving about; also that the back is somewhat arched. As the disease progresses, the animal will find it more difficult to rise; it will drag the hind parts; sometimes the hind legs will double up under it, making it impossible for it to stand.

In partial paralysis, the animal does not show as much evidence of pain as when the stiffness is caused by rheumatism. If neglected, the disease is often fatal in the course of a week or two. To overcome the trouble, correct the rations as indicated above, and give the animals constant access to "Sal-Vet."

"I fed a carload of hogs on which I made a thorough test of 'Sal-Vet' for seventy days. Cholera, or some disease like it was killing off hogs all around me, but I never had a single one sick; they remained in fine condition during the entire time."

W. C. Grove, Box 235, Hominy, Okla.

Rheumatism

This disease is quite common among swine and as difficult to explain and treat as when in the human body. Authorities differ widely as to the cause, since it is found under so many varying conditions. Cold and moisture undoubtedly increase the tendency toward the disease and greatly aggravate the trouble. The symptoms are practically identical with those found in rheumatism of the human body. There is a lameness usually of one or more legs and the joints often swell. The animal moves about with difficulty, and in some of the worst cases there is a strong resemblance to partial paralysis. The distinction can be usually made by forcing the animal to move about the pen. If there seems to be considerable pain attending the animal's movements, and if after moving about, the parts seem to be under better control, the trouble would seem to be rheumatism, and the following treatment is recommended:

The first step is to clean out the pens and beds and see that everything is clean and as dry as possible. As soon as the bed becomes damp, change the straw. Compel the animal to take plenty of exercise when the weather will permit. Disinfect the pen twice a week with a solulution of crude carbolic acid—using two tablespoonfuls to each gallon of hot water. Do not feed much corn; give more oats, oil meal and grass. Give 30 grains of salicylate of soda morning and night in the feed to each 150 pounds of hog. Apply equal parts of turpentine, ammonia and sweet oil to the back and parts affected.

When the joints are swollen, but neither hot nor tender, blister with a mixture of cantharides and lard, using one part of powdered cantharides, to six of the latter. This will frequently relieve the trouble when other means fail.

Swine Plague

This disease so closely resembles genuine hog cholera, that the one is often mistaken for the other. It matters little to the unfortunate owner which disease is present in his herd, since the outbreak in either case is almost sure to be accompanied by heavy losses. The profits of years may be swept away in a single week. It is of the utmost importance to take all possible precautions to keep the herd free from attacks of both these destructive diseases.

The germs do not live as long in earth, rubbish or water, as do cholera germs, and are not always fatal to hogs that are kept in a vigorous condition. Animals in good health seem able to resist their attacks, whereas in the case of genuine cholera, the germs are so virulent in their attack, that few animals can combat them.

The treatment in either case is very much the same. At the first signs of either disease, a competent veterinary should be called, and the well hogs immediately separated some distance from the sick ones.

Different persons should attend to the two herds, as the germs are easily carried in the clothing. The carcasses of the dead hogs should be buried deeply and covered with slacked lime or burned entirely. The pen should be thoroughly sprayed with a strong solution of carbolic acid. The serum treatment as prepared under the direction of the Department of Agriculture, should be administered.

When given in time, this treatment will prevent the disease, and do much to check the spread of contagion. After the disease has once gained a foot-hold in the herd, there is no remedy known at this time, which may be

administered, to successfully combat the ravages of the disease.

The widespread use of "Sal-Vet" during the more recent outbreaks of these diseases, has given farmers and stockmen a splendid chance to observe the value of the preparation as a preventive. Most remarkable letters have come to us from neighborhoods where hogs were dying on all sides from swine plague or cholera, and yet hundreds of users of "Sal-Vet" have escaped without the loss of a single animal.

It has never been claimed that "Sal-Vet" is a cure for these diseases, but we have emphasized at all times the great importance of keeping the animals in such a physical condition, that diseases of this kind are unable to gain a foothold. Keep your hogs free from worms; keep their digestive organs in proper condition and their systems in such a tone that each animal is vigorous and strong, then you will have very little cause to fear these destructive scourges. The convenient form of "Sal-Vet" (a medicated salt) makes it possible for all stock owners to use it regularly, as they can place it where all farm animals can run to it freely and doctor themselves.

"I have given 'Sal-Vet' a thorough trial with most gratifying results. My herd of Pure Bred Berkshires contracted a bad cough, and continually got worse until I gave your 'Sal-Vet' to them. After two weeks of this treatment not a hog was coughing and all are as sleek as moles."

E. Dana Sutcliff, Shickshinny, Pa.

"Before I got your 'Sal-Vet' my hogs were in bad shape—afflicted with a terrible cough and had no appetite. After feeding 'Sal-Vet' for three weeks, you would not recognize the animals as the same bunch. The cough is about gone and they are eating nearly double what they did before."

L. P. Raymond, Malcolm, Iowa.

Thumps

Pigs which are over-fed and which do not get enough exercise, are frequently afflicted with Thumps. The heart becomes affected indirectly. When the stomach contains undigested and fermented food, the gas arising therefrom, causes a distention of the diaphragm, the pressure of which interferes with the normal heart action. The combination of over-feeding and lack of exercise, has the further effect of causing an abnormal growth of fat around the heart, which still further affects that organ. This complication renders the disease more dangerous.

When the pig is standing, its body is jerked forward and backward with each breath; the palpitation is loud enough to be heard some distance from the animal.

The trouble is more common among pigs, and is frequently fatal, if neglected.

Keep the affected pigs dry and warm, and keep them on a light diet; give less corn, but more milk, flax meal, wheat shorts, etc. Let them have plenty, but not violent, exercise. Turn them out to follow the cattle, so that they will have to rustle for a living. Free access to "Sal-Vet" should be allowed the affected pigs. It helps to overcome the difficulty, and puts the pigs in a condition to better withstand a return of the trouble.

"One of my shoats was troubled with a bad case of Thumps, and was so far gone that he was hardly able to stand. A number of my other hogs showed symptoms of the same trouble. After feeding 'Sal-Vet' for about two weeks, there were no further symptoms of the disease."

Chas. F. Leonard,
Rt. 19, Thomasboro, Ill

Worms

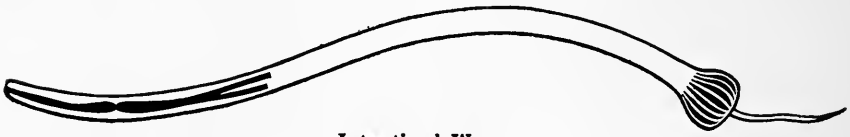
Until the past few years comparatively little attention was paid to these destructive parasites which infest nearly all farm animals. People did not realize what a struggle was going on continually between the growing animal and these thieving pests, which steal the food and impoverish the animal's blood. It is said that the animal losses from worms amount to millions of dollars annually. They not only rob you of your stock profits by

The Round Worm
Found in the small intestines of pigs

keeping animals out of condition and preventing them from putting on flesh, but it has been shown over and over again, that worm infested hogs are most apt to be the victims of hog cholera, swine plague and other destructive diseases, and the least likely to recover when attacked.

There are at least ten different kinds of worms that infest swine, seven of which are found in the stomach and intestines. These are the ones to which particular attention should be given, inasmuch as they cause the greatest losses, and yet all yield readily to the action of "Sal-Vet." Kidney worms, lung worms and trichina, owing to their location in the animal's body, cannot be treated with any assurance of success, but for lung worms

some recommend the following: Give turpentine in the slop at the rate of one teaspoonful for each 80 pounds of live hog weight. Repeat once daily for three successive days each week, for two or three weeks.



Intestinal Worm
(Strongylus Dentatus)

The worms which infest the stomach and intestines of hogs and other farm animals, multiply by the millions and work havoc with stock profits, unless they are expelled and the animals put in condition to get full benefit of their food.

No matter what quality and quantity of feed is given, hogs will get worms. Worms will check the growth of pigs only a few weeks old. It is not uncommon to find pigs ten weeks old, literally loaded with intestinal worms.

Worms absorb much of the nutriment in the hog's rations, irritate the stomach, intestines, etc., cause indigestion, and often blood poisoning.

A hog that is infected with worms is in just the right condition to fall a victim of cholera and swine plague. Keep your hogs in healthy growing condition, free from worms, and they will repay you well at marketing time.

You cannot keep stock profitably by starving or allowing them to shift for themselves. As elsewhere, so in

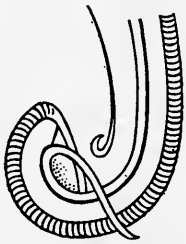
stock raising, it holds true, that what costs little to acquire, brings little at sale. Care to maintain the health of hogs, pays big dividends.

The more a hog eats and digests, the quicker he is ready to be converted into pork.

Kidney Worm

You want your hogs to have good appetites; but they must have good digestion, too.

"Sal-Vet" is today recognized by many Agricultural Colleges, prominent breeders and feeders, as well as by the majority of stockmen and farmers, to be the greatest of worm destroyers and conditioners. On account of the convenient form in which it is supplied (a medicated salt, to which stock can run freely) it has become exceedingly popular. Its action is positive and sure. Worms cannot exist where it is fed. Animals relish it.



Pin Worms

It requires no drenching, no dosing, no starving, no mixing, This preparation is used by hundreds of thousands of farmers in all parts of the United States, and consequently millions of dollars are being saved to the farmers and stockmen of America.

State Agricultural Experiment Stations Endorse

From Ohio State University; College of Agriculture.

"We have used 'Sal-Vet' with excellent satisfaction, and while we have not obtained information as to the absolute effect on our sheep, they consumed the preparation with results which appear to us to corroborate your statement, that it is desirable for discouraging the development of worms, and keeping sheep in a good condition.

"I believe that 'Sal-Vet' will repay the user in the results which come from its action in his flock."

C. S. Plumb, B. Sc., Prof. of Animal Husbandry.

From Oklahoma Experiment Station.

"Please send us another shipment of 'Sal-Vet.' We endeavor to keep a constant supply of 'Sal-Vet' before our sheep, particularly at this time of the year when there is greatest danger of lambs and sheep contracting stomach worms and other parasitic diseases."

W. A. Linklater,
Animal Husbandman.

From California College of Agriculture.

"We received the 'Sal-Vet' some time ago and are feeding it to our breeding sheep. It is doing the work in fine shape."

J. J. Thompson, Dept. Animal Husbandry.

From North Carolina College of Agriculture.

"In my live stock work here in North Carolina I have had an opportunity to recommend your 'Sal-Vet' to a number of stockmen. Having used it at New Hampshire College last year and year before, I am in a position to know its great value. Our cattle have done well ever since we began using 'Sal-Vet,' and I am always glad to recommend an article that is as good as the one you are placing on the market."

John C. McNutt, Prof. Dept. Animal Husbandry.

Additional Experiment Station Endorsements

From Iowa State College.

"We have been using 'Sal-Vet' for the past two years; to tell the truth, we are somewhat surprised at the good results we have secured with it. Our lambs have been quite free from serious parasitic trouble, and as the 'Sal-Vet' has been fed faithfully during the period mentioned, we consider it a vermifuge of considerable merit. We know that our pastures are infected with stomach worms, and feel that 'Sal-Vet' has been responsible for keeping the losses from this source, down to a minimum."

John M. Evvard, Experimentalist,
Iowa State College.

From Connecticut Agricultural College.

"We have used 'Sal-Vet' with good effect on our sheep. Our lambs have never done so well as this spring."

L. A. Clinton, Director.

From North Carolina Experiment Station.

"We find 'Sal-Vet' a very satisfactory worm exterminator, and are very much pleased with results."

R. S. Curtis, Animal Husbandman.

From Nashville Agricultural and Normal Institute, Madison, Tenn.

"After making a number of interesting tests on our sheep, I am confident that 'Sal-Vet' will destroy worms."

E. A. Sutherland, President.

From South-East Alabama Experiment Station, Abbeville, Ala.

"'Sal-Vet' has been of great service to us. It has kept our hogs and pigs free from worms, and furthermore, has demonstrated that it is a splendid tonic."

J. Buhrmas Espy, Agriculturist.

From Texas Agricultural Experiment Station.

"We are using 'Sal-Vet' with satisfactory results."

C. N. Alvord,
Professor of Agriculture.

CONTENTS

Preface ..... Page 3
Successful Hog Raising, by Hon. F. D. Coburn ..... Page 5
Breeds ..... Pages 17-41
- Berkshires, by Mr. A. J. Lovejoy ..... Page 17
- Poland Chinas ..... Page 23
- Hampshires ..... Page 27
- Durocs, by Mr. Robert Evans ..... Page 29
- Chester Whites ..... Page 35
- The Tamworth ..... Page 36
- The Tamworth Cross ..... Page 37
- Yorkshires ..... Page 38
- Cheshires ..... Page 39
- Victorias ..... Page 40
- Essex ..... Page 41
- Suffolk ..... Page 41

Selecting the Boar ..... Page 42
Selecting the Brood Sow ..... Page 45
Farrowing ..... Page 46
Caring for the Little Pigs ..... Page 52
Feeding the Brood Sow and Litter ..... Page 55
Feeding the Pregnant Sow ..... Page 56
Feeding the Boar ..... Page 59
Feeding the Growing Pigs ..... Page 59
Feeding for Market ..... Page 62
Winter Feeding ..... Page 65
Pasture for Hogs ..... Page 66
The Pen and Yards ..... Page 68
The Artificial Hog Wallow ..... Page 71
The Diseases of the Hog ..... Pages 75-93
- Anthrax — Apoplexy — Hog Cholera —Chorea— Diarrhoea — Indigestion —Measles—Partial Paralysis—Rheumatism— Swine Plague—Thumps— Worms.

Endorsement of Leading Agricultural Experiment Stations ..... Pages 94-95

SAL-VET

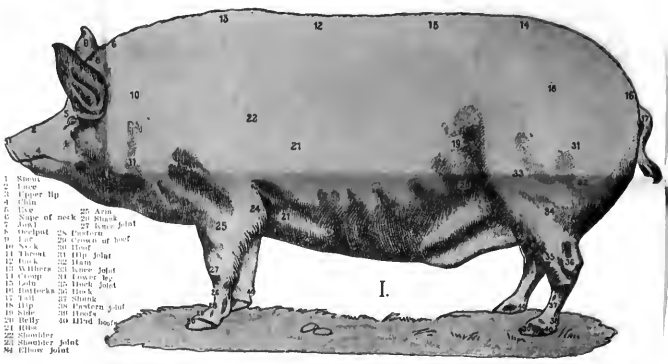
TRADE MARK

REG. U.S. PAT. OFF.

ANATOMICAL SWINE CHART

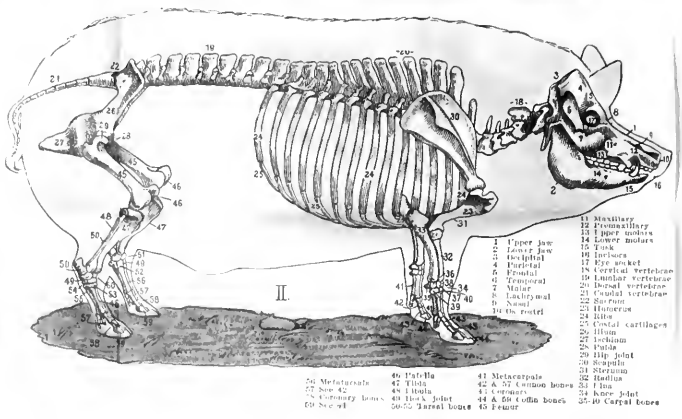
SUPPLEMENT OF SAL-VET SWINE BOOK

PUBLISHED BY THE S. R. FEIL CO., CLEVELAND, O.



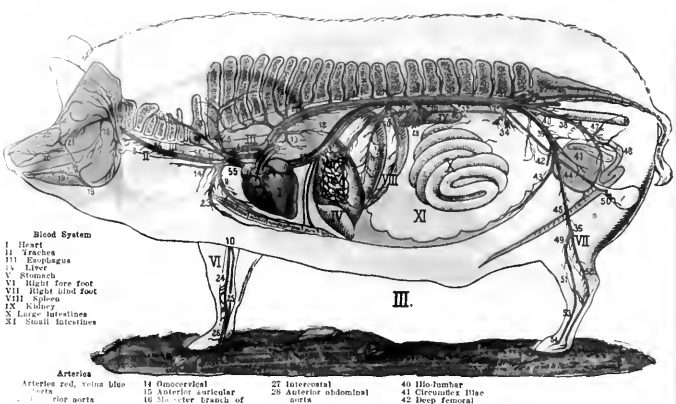
I.

1 Snout
2 Face
3 Upper lip
4 Chin
5 Ear
6 Nape of neck
7 Joint
8 Dewlap
9 Leg
10 Neck
11 Throat
12 Back
13 Withers
14 Croup
15 Loin
16 Buttocks
17 Tail
18 Hip
19 Side
20 Belly
21 Ribs
22 Shoulder
23 Shoulder joint
24 Elbow joint
25 Arm
26 Shank
27 Knee joint
28 Pastern
29 Coronet or hoof
30 Hoof
31 Hip joint
32 Ham
33 Knee joint
34 Lower leg
35 Hock joint
36 Hock
37 Shank
38 Pastern joint
39 Hoofs
40 Hind bone



II.

1 Upper jaw
2 Lower jaw
3 Occipital
4 Parietal
5 Frontal
6 Temporal
7 Molar
8 Lachrymal
9 Nasal
10 Os. pectrl
11 Maxillary
12 Premaxillary
13 Upper molars
14 Lower molars
15 Tusk
16 Incisors
17 Eye socket
18 Cervical vertebrae
19 Lumbar vertebrae
20 Dorsal vertebrae
21 Caudal vertebrae
22 Sacrum
23 Humerus
24 Ribs
25 Costal cartilages
26 Ilium
27 Ischium
28 Pubis
29 Hip joint
30 Scapula
31 Sternum
32 Radius
33 Ulna
34 Knee joint
35-40 Carpal bones
36 Metacarpals
37 Tibia
38 Ulnaria
39 Sacral
40 Patella
41 Metacarpals
42 & 57 Cannon bones
43 Cuneiform
44 & 59 Coffin bones
45 Femur
46 Tibia
47 Fibula
48 Hock joint
49-55 Tarsal bones



III.

Blood System

I Heart
II Trachea
III Esophagus
IV Liver
V Stomach
VI Right fore foot
VII Right hind foot
VIII Spleen
IX Kidney
X Large intestines
XI Small intestines

Arteries

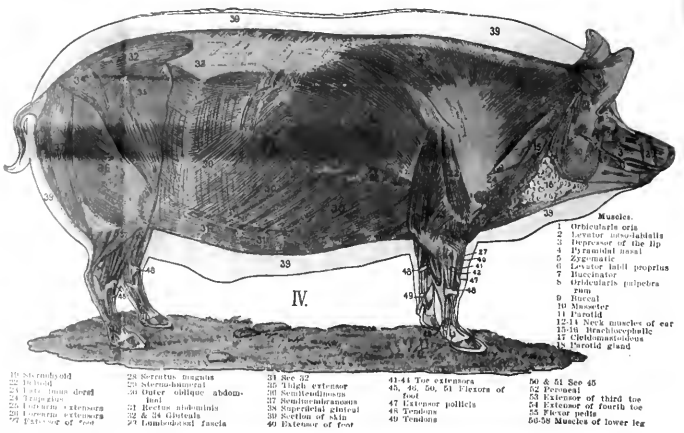
Arteries red, veins blue

Aorta
Anterior aorta
Brachiocephalic
Subclavian
Axillary
Intercostal
Humeral
Radial
Digital
Coeliac
Hepatic
Gastric
Splenic
Mesenteric
Renal
Spermatic
Internal pudic
Femoral
Popliteal
Anterior tibial
Dorsalis pedis
Plantar
Metatarsal
Digital

14 Omocervical
15 Anterior auricular
16 Muscular branch of same
17 Temporal
18 Facial
19 Lower labial
20 Upper labial
21 Infraorbital
22 Upper nasal
23 Outer thoracic
24 Humeral
25 Radial
26 Digital
27 Intercostal
28 Anterior abdominal aorta
29 Anterior mesenteric
30 Renal
31 Lumbar
32 Branch to ureter
33 Inner spermatic
34 Posterior mesenteric
35 Saphenous
36 Gluteal
37 Pelvic arteries
38 Pudic
39 Iliac
40 Ilio-lumbar
41 Circumflex Iliac
42 Deep femoral
43 Epigastric
44 Femoral
45 Dorsalis penis
46 Lateral caudal
47 Rectal
48 Profundi penis
49 Saphenous
50 Outer spermatic
51 Outer tarsal
52 Tarsal perforans
53 Tibial
54 Digital

Veins

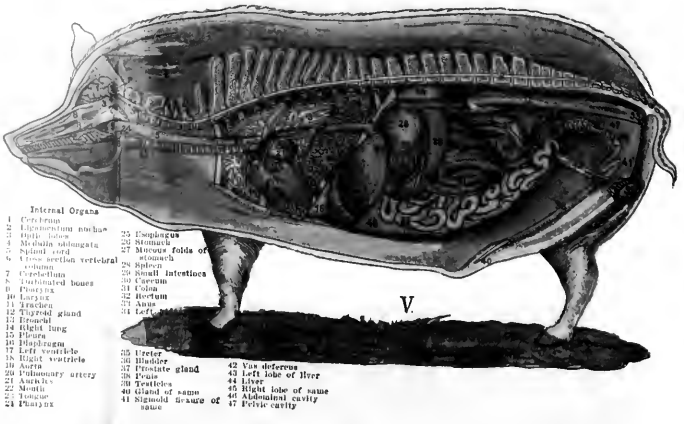
55 Anterior vena cava
56 Jugular
57 Posterior vena cava
58 Hepatic
59 Capillaries of portal
60 Portal
61 Pulmonary



IV.

Muscles.

1 Orbicularis oris
2 Levator nasolabialis
3 Depressor of the lip
4 Pyramidal nasal
5 Zygomatic
6 Levator labii proprius
7 Buccinator
8 Orbicularis palpebra rum
9 Buccal
10 Masseter
11 Parotid
12-14 Neck muscles of ear
15-16 Brachiocephalic
17 Cleidomastoideus
18 Parotid gland
19 Sternohyoid
22 Deltoid
23 Long head of triceps
24 Trapezius
25 Extensors
26 Extensors
27 Extensor of foot
28 Serratus magnus
29 Sterno-humeral
30 Outer oblique abdominal
31 Rectus abdominis
32 & 34 Gluteals
33 Lumbodorsal fascia
35 See 32
36 Thigh extensor
37 Semitendinosus
38 Semimembranosus
39 Superficial pectoral
39 Section of skin
40 Extensor of foot
41-41 Toe extensors
45, 46, 50, 51 Flexors of foot
47 Extensor pollicis
48 Tendons
49 Tendons
50 & 51 See 45
52 Peroneal
53 Extensor of third toe
54 Extensor of fourth toe
55 Flexor pedis
56-58 Muscles of lower leg



V.

Internal Organs

1 Cerebrum
2 Ligamentum nuchae
3 Hyoid bone
4 Medulla oblongata
5 Spinal cord
6 Cross section vertebral column
7 Cerebellum
8 Turbinated bones
9 Pharynx
10 Larynx
11 Trachea
12 Thyroid gland
13 Bronchi
14 Right lung
15 Pleura
16 Diaphragm
17 Left ventricle
18 Right ventricle
19 Aorta
20 Pulmonary artery
21 Auricles
22 Mouth
23 Tongue
24 Pharynx
25 Esophagus
26 Stomach
27 Mucous folds of stomach
28 Spleen
29 Small intestines
30 Caecum
31 Colon
32 Rectum
33 Anus
34 Left
35 Ureter
36 Bladder
37 Prostate gland
38 Penis
39 Testicles
40 Gland of same
41 Sigmoid flexure of same
42 Vas deferens
43 Left lobe of liver
44 Liver
45 Right lobe of same
46 Abdominal cavity
47 Pelvic cavity

Copyright, 1912 by
S. Blake Williden, Chicago, Ill.

ANATOMICAL SWINE CHART

SUPPLEMENT OF SAL-VET SWINE BOOK

PUBLISHED BY THE H. PREL CO., CLEVELAND, O.

SAL-VET

SEP 30 1912

LIBRARY OF CONGRESS
0 002 835 088 0